

# University News

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**GAUTAM K. BORAH**

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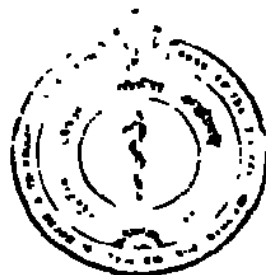


**Association of Indian Universities**

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## NOTIFICATION

The Sree Chitra Tirunal Institute for Medical Sciences and Technology (SCTIMST) is an Institute of national importance established by an Act of Parliament in 1981. It conducts Post-doctoral degree and certificate courses and awards DM and M Ch degrees in advanced medical specialities, and Ph D in medical and related disciplines, and in biomedical technology. The Institute has the status of a University and it is a member of the Association of Commonwealth Universities. It has a Hospital Wing and Biomedical Technology Wing. The Achutha Menon Centre for Health Sciences Studies (AMCHSS), the third Wing of the Institute is devoted exclusively to Public Health and Social Sciences in relation to health developments and health care.

The Institute has approved the development of the AMCHSS as a Premier School of Public Health in South Asia. The Centre has drawn up a medium to long-term perspective plan for the development of the School of Public Health, starting with a MPH programme beginning in January 1997 and the commencement of Ph D programme from the year 2002-2003.

The Institute is looking for outstanding faculty in the areas of Epidemiology, Biostatistics, Health Economics, Medical Anthropology and Health Planning and Policy. Persons with excellent academic record/research publications in reputed international journals, ability to work with inter-disciplinary groups, excellent communication abilities and leadership qualities are eligible to apply. The selected persons are required to devise courses and participate fully in building up the facilities and programmes and should have the capacity to develop innovative research programmes in collaboration with the faculty of the medical and technology wings of the Institute. The appointment will be initially for a period of five years but is likely to be made permanent at the end of that period with mutual consent.

Applications are invited to the post of Associate Professor/Professor in the following areas:-

- (1) Epidemiology (2) Biostatistics (3) Health Economics (4) Medical Anthropology (5) Health Planning and Policy

### Minimum qualifications & experience required

**Associate Professor** : Ph.D in the relevant field with 7 years teaching and/or research experience OR MD OR Equivalent qualification in any branch of Medicine with 7 years experience in the relevant area.

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### Scale of pay, allowances, age limit, etc.

**Associate Professor** - Rs 4100-5300 (Total emoluments Rs 10115 + HRA + NPA with its DA and Conveyance allowance as applicable will be in addition), Age not more than 45 years as on 31.7.96

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The level of appointment will depend upon the qualifications, experience, publications, etc. of the candidate concerned.

The pay scales offered are likely to be revised upward on the award of the Central Pay Commission Report.

The Institute is also interested in receiving the bio-data of persons interested in Visiting and/or Adjunct appointments.

### General Conditions

The Institute reserves the right to appoint persons of exceptional merit by nomination or negotiation even if they had not applied in response to this notification.

All posts carry allowances at Central Government rates. The Faculty will be eligible for addition of upto 5 years to the qualifying service for pension in accordance with the rules of the Institute. Persons working in Central/State Government or in Public Sector undertakings should submit their application through proper channel. Any attempt to influence the Selection Committee or the Institute directly or indirectly will disqualify the candidates. The Institute will short list the applications and therefore all the qualified/experienced applicants may not be called for interview. The decision of the Institute will be final and no correspondence will be entertained from the applicants in this regard. Applications typed on plain paper with bio-data of the candidate and attested copies of certificates of educational and professional qualification, date of birth, experience and names and addresses of three referees should reach the undersigned on or before 30.7.1996.

Appointees are required to join the post on or before 1st November 1996.

**DIRECTOR**

**Advt. P & A.IV/9/S.S.S./SCTIMST/96**

**Date: 7.6.1996**

# UNIVERSITY NEWS

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Editor :  
SUTINDER SINGH

# Tezpur University

## A New Direction in Higher Education

Gautam K Borah\*

### Introduction

Tezpur University is one of the newly established central universities in India and was set up by an Act of Parliament in 1993. A much and long cherished dream of the people of Assam, the university was opened on 21 January, 1994 by the then Prime Minister, Shri P V Narasimha Rao. The President of India, Dr Shanker Dayal Sharma, in this capacity as the Visitor of the university had in the meantime appointed Prof Kishori Mohan Pathak, an eminent scientist and futurologist, and former Professor and Head of the Dept of Physics, and Dean, Faculty of Science in Gauhati University as founder Vice Chancellor, who joined his duties on 19 January, 1994. With Prof Pathak as Vice-Chancellor the university started functioning on 21 January, 1994.

A non-affiliating institution of higher education, Tezpur University, with all its many special features, which make it different from a traditional university, is committed to providing students with a fulfilling education to equip them to play key roles in an environment of rapid social and economic change. At the same time it is committed to an all round development of the State it belongs to. Section 4 (First Schedule) of the Tezpur University Act 1993 states its promises in the following words:

The University shall endeavour through education, research, training and extension to play a positive role in the development of the North-Eastern region, and, based on the rich heritage of the region, to promote and advance the culture of the people of the state of Assam....(a) strive to offer employment oriented and interdisciplinary courses... to meet the local and regional aspirations and the development needs of the State of Assam...(b) offer courses which are of special and direct relevance to the region and in emerging areas in science and technology... (c) study the rich cultural heritage of the region... the diverse ethnic, linguistic and tribal cultures of the state...(d) utilise distance education,.....modern communication technologies ...provide access to higher education to the disadvantage group, ...upgrade the professional knowledge and skills of in-service personnel.....and, (e) provide an innovative system of university level education, flexible in regard to methods and pace of learning... to promote learning and encourage excellence in new fields of knowledge.

At present the university offices and the academic departments are functioning from the premises of Tezpur Law College and Darrang College at Tezpur. For its permanent campus, the university has been allotted 200 acres of land at Napam, which is about 12 km northwest of Tezpur town. A rolling highland bordered by a thick tropical forest,

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the area with its serene atmosphere and unpolluted habitat should prove to be ideal for the growth of an academic estate. The master plan for the campus has in the meantime been finalised and it will be executed in a phased manner. The boundary wall — the first phase of construction — is nearing completion.

### **Perspective Plan**

A 20-year perspective plan has been drawn up, according to which the university will have the following schools with various departments and centres under each of them:

- 1) The School of Science and Technology
- 2) The School of Energy, Environment and Natural Resources
- 3) The School of Humanities and Social Sciences
- 4) The School of Management Sciences

The University Grants Commission has so far approved the opening of fourteen departments out of which the following six departments have in the meantime been started:

- 1) Dept of Mathematical Sciences
- 2) Dept of Computer Science
- 3) Dept of Energy
- 4) Dept of English and Foreign Languages
- 5) Dept of Traditional Culture and Art Forms
- 6) Dept of Business Administration

The university is taking steps to start four more departments during 1996-97. The departments are: the Dept of Chemical Sciences (Polymer Science), Dept of Molecular Biology and Biotechnology, Dept of Information Science and Technology, and the Dept of Mass Communication and Journalism. A computer centre has also been established under the Dept of Computer Science. A centre for Disaster Management will also be started shortly.

The current faculty strength of the university is 30. However, the departments are utilising from time to time the expertise of visiting professors from Indian (IITs, IISc, etc) as well as overseas universities. The university has planned to have a very low student-teacher ratio and towards that end access to its programmes has been restricted. The class size at the university is, therefore, rather small.

### **Courses on Offer**

As for the principal academic programmes currently being offered by the existing departments, the Dept of Mathematical Sciences is offering a 2-

year (4 semesters) Master's degree in Mathematics (intake 20); the Dept of Computer Science a 3-year (6 semesters) Master's degree in Computer Science (intake 10); the Dept of Energy a 1-year (2 semesters) Post Graduate Diploma in Non-Conventional Energy Technology (intake 10); Dept of English and Foreign Languages a 1-year (2 semesters) Post Graduate Diploma in English Language Teaching (intake 20); Dept of Traditional Culture and Art Forms a 2-year (4 semesters) modular MA programme (intake 15), the first module of which is a six-month certificate course (1 semester). The third module of the course is a 1-year programme (2 semesters), which can be opted for only after successfully completing the first two modules. The Dept of Business Administration is offering a 2-year Master's degree (6 trimesters) in the subject. A part time 3-year MBA course for employed persons will also be started from July, 1996.

### **Relevance**

For a university, at least in the North-East, some of these courses are rather new concepts. Conventional sources of energy fast running out, one of the biggest challenges of the day is to explore the possibilities and means of tapping non-conventional energy sources. The Department of Energy is intended to that and is committed to providing trained manpower for energy planning and management and also for implementation of various programmes in the national and state level departments and agencies. Likewise, the students on the Traditional Culture and Art Forms will be studying the rich cultural heritage of the North-East which will help us know ourselves better, promote understanding between different ethnic groups living in this region, and also give us a new direction in assimilating the new and the old. The Traditional Culture and Art Forms programmes are expected to have considerable employment potential in such fields as Tourism, Public Relations, Planning and Management of Cultural Affairs and also the print and electronic media. The programmes should also prove useful as in-service training programmes to the government or semi-government servants in the fields mentioned above. In the Department of English and Foreign Languages, the proposed languages other than English are French, German, Russian, Japanese, Chinese and Malay, which are yet to be introduced. One of the major problems of teaching of English in India has been the lack of clarity about what role English has to play in India today. One

can observe that the Indian tradition of teaching and learning English has been predominantly literary. This is, however, not accidental: Lord Macaulay, for his imperial government, frankly declared that the purpose of introducing English in India was to 'civilize the Indian people in the superior thought and literature of England'! But what India needs today is not only English literature from a new perspective but also the English language to be used for a variety of purposes. As a matter of fact, the last two decades in India have witnessed a rapid change in the role of the English language. It has come to serve as a vital mode of communication to meet personal, societal and professional needs. And herein lies the importance and relevance of teaching and learning English as language too and educate and train teachers of English on these lines. It is with this concept in mind, the Department of English and Foreign Languages has designed its courses on English. The 1-year Post-graduate Diploma programme in English Language Teaching that the department is offering at present is thus meant for both potential and practising teachers of English (at school and college levels) and the course has been so designed that the students of this course can gain perspective insights into the nature of language, familiarize themselves with the modern research and experiments in the field of (second) language acquisition and teaching and are motivated to develop themselves as teachers of English in the Indian context. The department is also designing a 2-year MA course in English in which linguistics and literature have been integrated. The department has also proposed, among other things, at least four short orientation and refresher courses every year for the teachers of English in Assam and the neighbouring states. Arrangements are also being made to introduce DCA (Diploma in Computer Applications) along with the Master's degree for students of all the faculties.

The faculties of several departments have already taken up research work, and a number of students have registered for their Ph.D. The syllabi of the courses in different departments have been so designed as to make them interdisciplinary as far as practicable.

A unique feature of the university is that every student at the university is required to take one test on spoken English and another on computer applications soon after the commencement of the classes. Students failing to demonstrate an acceptable level

of proficiency shall have to attend audit classes on those two areas which are offered by the Department of English and Foreign Languages and the Department of Computer Science.

### **Evaluation**

As for evaluation, the university has designed its evaluation system on the principles of continuous assessment in which students are assessed regularly throughout the programme rather than being given a single assessment at the end. Obviously this gives a more accurate picture of student achievement. In the evaluation system of the university 60% of the total marks have thus been assigned to continuous assessment on the student performance in tutorials, take-home-assignments, periodic tests and also attendance while the remaining 40% to the examination held at the end of each semester/trimester.

### **Work Schedule**

Yet another unique feature of the university is its hectic work schedule. The number of holidays a year is only 32. There are two recess breaks of 15 days each at the end of a semester. The university follows a six-day week and its working hours are from 8-30 a.m. to 12-45 p.m. and from 2-30 p.m. to 4-30 p.m. for the first five days of the week, with a tea break between 10-30 to 10-45 a.m. and a lunch break between 12-45 to 2-30 p.m. The working hours for Saturdays are from 8-30 a.m. to 12-00 noon.

### **Continuing Education & Extension**

The university has also opened some short-term evening programmes for various segments of the community surrounding the institution and response to these programmes has been rather overwhelming. The Department of English and Foreign Languages, for example, is offering a three-month certificate course on spoken English three times a year, especially to the HSLC, HSSLC, and college level students of the town. Similarly the Department of Computer Science offered a four-week evening programme on computer software for the junior engineers of the Public Health Engineering Department of the Govt. of Assam at Tezpur. Short term evening programmes for in-service personnel in areas such as Management, Organizational Behavioural, Statistics and the like are also being planned. Tezpur is the headquarters of the 4th Corps of the Army and so the town and its immediate vicinity have a huge defense establishment. The

town is also surrounded by a large number of tea gardens. The university is exploring areas for evening programmes that would be in demand for in-service defense personnel, ex-servicemen, and also tea garden managers who have settled in and around Tezpur. The university has also introduced a programme called Saturday Guest Speaker Programme in which an eminent professional is invited to deliver a lecture on a topic of the speaker's choice. The programme has thus provided a forum for the university family to exchange their views in different interesting and urgent topics.

### Infrastructure

Being a technology oriented institution the university is planning to have the best of the marvels of modern technology. The computer laboratory of the university, housed temporarily in the Tezpur Law Colleges building, boasts a local area network server linking 24 up-end 80486 machines linked to a mother pentium machine. It also has a 100 Mhz. sophisticated CD-ROM driven SUN Workstation using UNIX Solaris as its O/S and capable of multi-media applications. These are supported by other devices and a few more machines and other equipment for the laboratory including 5th generation multi-media software is being procured for academic and advanced research use. Moreover, the university is making the preliminary studies to hook-up the institution into the 'Information Superhighway' through the NICNET, ERNET, SRINET, etc and into the global network of cyberspace through INTERNET. Added benefits will be features like E-mail and countless Bulletin Boards in practically every field.

The university has already started a library and books worth over rupees ten lakh have been purchased. Subscriptions to a variety of journals and magazines have been made and plans are afoot to acquire the best available from throughout the world. In the near future the library is going to have a fully automated user-friendly computer driven system. Plans are also underway to connect the library with some of the most advanced and modern libraries in the country through the INFLIBNET network. It is hoped that this library will be one of the most advanced and modern libraries in the North-Eastern India.

The university has also proposed to have a full fledged Training and Placement wing, which will assist, counsel and find suitable places of employment for its students. The relationship between the university and its students is thus not ephemeral, it is a relationship to be carefully built up to last long or forever. The university has also proposed to institute an 'Excellence in Education' award scheme for its toppers, which will entirely be funded by the corporate world and individuals. The awards are intended to motivate the students to work hard for creativity, originality, and excellence. The university had recently received a public endowment for starting a specialised library in the Dept of Traditional Culture and Art Forms.

The university is also soon going to publish a half-yearly *Journal of English Translations of Assamese Literary Works* with an editorial board consisting of some eminent scholars. A challenging but timely step at a time when our national integration is rather threatened, the journal is no doubt one of the many remarkable achievements the university has made within the very short period of time of its existence.

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**G. SWAMIDURAI**  
Correspondent

**"QUALITY IN TOTO IS OUR MOTTO"**



# Towards Excellence in Higher Education

## The Role of "Skills" Development

**B.R. Sant\***

As a consequence of two-day Governors' Conference concluded on December 29, 1995, the President of India Dr. Shankar Dayal Sharma has constituted a Committee of Governors to examine the role of Governors as Chancellors of Universities for improving the quality of higher education (HE) because as the President has noted, "Governors have important statutory responsibilities and as Chancellors, are a bridge between the academic community of students and teachers, and the state governments" (*The Hindu*, December 30, 1995). Just about the same time, non-teaching employees of 13 universities in Andhra Pradesh numbering about 50000 threatened to go on strike from January 3, 1996 if their demands on revised dearness allowance were not met. The agitation did take place but somehow it did not end up in an indefinite closure of all the universities in the state as feared. Such problems are being faced by almost all the Indian universities, with varying degrees of intensity. Already the severe budgetary constraints have posed a challenge to universities to raise their own financial resources at least partly. Many individual experts, committees, the University Grants Commission (UGC), the Association of Indian Universities (AIU), and universities themselves are constantly discussing and debating the problems of HE. There is hardly a newspaper or a magazine that does not write critically on the subject of HE. On the whole it appears that HE in our country is at the threshold of a crisis.

All the world over also, debates are going on about HE mainly in the context of outstanding developments in science and technology, economic changes, political aspirations, growing needs of industry and commerce, newer trends in free trade, and globalisation. Institutions of HE are constantly striving for excellence especially in the developed countries. *U.S. News & World Report* of September 18,

1995 published from Washington, D.C. presented the ranking of 25 best liberal arts colleges (out of 161) and 25 best universities (out of 229) in USA with Amherst College, Mass. and Harvard University, Mass. standing on the top of the 2 groups respectively. Rankings are also accorded for top 50 engineering schools (Massachusetts Institute of Technology at the head) and top 50 business schools (University of California, Berkeley, at the head). The Berkeley campus highlights its excellence characteristically by listing out the names of the 17 Nobel Laureates of which 10 were from Departments of Chemistry and Physics. Universities in USA scout for talent and lure gifted teachers to their campus despite hard times. Seldom does one hear murmurs about selection and appointment of Vice-Chancellors (University Presidents) in USA.

The four core factors that are common to every institution of higher learning and which should form inescapable elements in reviewing the performance of any institution are Quality of teaching, Quality of courses, Quality of examination process, and Quality of staff development — for increased teaching effectiveness. (Ronald Barnett. *Improving Higher Education — Total Quality Care*. London, The Society for Research into Higher Education and Open University Press, 1992).

In any analysis, teacher occupies a pivotal position and any improvement in HE must start with the teacher. Whatever be his designation (lecturer, reader, professor) every one has to teach — transmit knowledge (stimulation). Teacher has to have communication skills and many other traits, perhaps the most important being "an example". There is no substitute for a good teacher in the matter of creating and sustaining student motivation.

The other truth is that today's student is tomorrow's teacher. If HE has reached a crisis stage the blame has to be as much if not more on teacher as on student assuming only two actors in the HE drama; in reality there are many more. In today's

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scenario we have to accept whatever be the quality of students, teachers, non-teaching staff, administrators, and even the vice-chancellors. Not only have we to accept, we have to "manage" with them and still try to achieve the desired goals including "excellence". Mere criticism will only lead to frustration and gloom. Policy changes, recruitment procedures, recognition of talent and merit, vice-chancellors' selection methods, examination reforms, curricula orientation all are essential but it will be a monumental task to improve everything in a short time.

Economic reforms are virtually staring at us. Much is expected from the HE sector. Now or never is the situation we are in. The best approach towards achieving excellence in HE is to impart necessary "skills" in the existing people, atleast as many core people as possible in all categories — students, teachers, administrators, even the non-teaching staff. There are skills of leadership which broadly encompass attitudinal skills and communication skills. They constitute the major gaps in the present system. It is not a very difficult task if we have the

will. The present author alongwith a few of his colleagues from education, science and technology, management, industry, marketing firmly believe that in HE system, as in many other systems and sectors, there is an urgent need to develop attitudinal skills, also known as positive or possibility thinking. Another important component of skills development is "effective communication" which also includes the art of public speaking. The training design package has to be unconventional in approach and style. Some more modules can and may be added to meet the requirements of the target group. Such "skills" development will catalyse self-development, build team work, motivate, and channelise human resources towards achievement-oriented goals. It is expected that once the leadership skills through attitudinal changes and communication skills are imparted, practised, and sustained, there will be synergetic action and the present HE system can be raised to enhance performance and excellence. Recent experience at an Academic Staff College Workshop for Principals of Colleges has shown signs of success. In the course of time a chain reaction can be expected.

## **NATIONAL LAW SCHOOL OF INDIA UNIVERSITY (NLSIU)**

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**REGISTRAR**



# Professional Assessment of Teachers in Higher Education

P. Prema\*

Higher education in India has witnessed tremendous expansion since independence. There has been an enormous increase in the number of colleges and universities. However, the success story of this impressive growth turns bleak when the question of quality is raised. The standards in higher education have been eroded by rising tides of mediocrity. Higher Education has been finding it difficult to meet the challenges of knowledge explosion, educated unemployment, unplanned expansion, uneven growth, financial crisis, student unrest, teacher burnout and a number of other problems. A consequence of this failure to meet these challenges is the fall in standards which is a serious threat to a developing nation like ours.

Researches have repeatedly corroborated the fact that the progress of a nation squarely rests on the teachers. That is why the first sentence of Education Commission Report (1964-66) started thus: "The destiny of a nation is being shaped inside the classrooms".

As a first step to improve the quality of university education, an assessment of teaching has to be done. Evolving objective parameters of professional assessment based on sound research is a prerequisite for improvement of teaching.

## Assessing Teaching at University Level

The term 'teaching' has been used in two senses — teaching as a profession and teaching as an ongoing classroom behaviour of the teacher.

For global assessment of teaching, considered as a profession, Centre for Vocational Education, Ohio State University has given some guidelines. The broad parameters are the teacher's performance in relation to programme planning, instructional planning, instructional management, guidance, institution — community relations, student organization, professional role and development.

A comprehensive and objective assessment of

the different competencies of the teacher and the performances demonstrated, through multi-measurement strategies will be useful in getting a profile of the teacher. The assessment may be done through the use of such tools as observation schedule, rating scale where rating may be done by teachers themselves (self-rating), by peers, supervisors and students. Assessment of teaching has been considered, very often an educational intangible, but really it is not so.

The prerequisites of good assessment are (i) evolving objective criteria, and (ii) designing appropriate tools using these criteria for assessment. A comprehensive assessment is possible when three aspects of teaching are considered: (i) Presage variables; (ii) Process variables; and (iii) Product variables. These criteria have been given by Mitzel (1963).

### *Presage Variables*

Presage variables refer to the personality dimensions, professional motivation, interest, attitude to the profession and self-concept of the teacher. We may add the academic background which is crucial for success in teaching. For the assessment of presage variables psychological instruments such as observation, interviews, personality inventories, projective tests, questionnaires, rating scale, opinionnaires, interest inventories may be used. Though this may seem cumbersome, there are many standard tools which may be used with suitable adaptations.

### *Process Variables*

Process variables relate to the ongoing classroom teaching behaviour and the competencies exhibited by the teacher in terms of his or her knowledge of the subject, methodology of teaching and how effectively the teacher employs these methods. There are several methods adopted by the teachers at higher level such as lecture, demonstration, debate, group discussion, panel discussion, case analysis, simulation, and the like. Since lecture is the most common method employed by the teacher, it is necessary to have a knowledge about the aspects of

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effective lecturing for assessment purpose.

Brown and Atkins (1988) mention the major skills of teaching as explaining, with clarity and interest, generating interest among students, using audio-visual aids, varying student activities, comparing and contrasting, openings and endings of the lecture.

The effectiveness of a lecture may be rated by students, peers, self and through recorded reactions of students. The rating scale may include units such as : (1) The lecture was clearly structured; (2) The lecturer indicated when he or she had come to the end of a major section; (3) The main points given were clear and understandable; (4) The minor points and reservations given were understandable and clear; (5) The examples given were relevant; (6) The examples were interesting; (7) The pace of the lecture was appropriate to the level of the students; (8) The amount of material covered was right; (9) The lecture was clearly audible; (10) The chalkboard and other aids were used effectively; (11) The lecture was well prepared; (12) The lecture was well presented; (13) The lecture held the attention most of the time; (14) The lecture was interesting; (15) The lecturer usually looked at and talked to the lecture group and not to the furniture; and (16) There was effective summing up of the main points.

#### *Product Variables*

The product variable refers to the students' achievement and progress and their explicit exit behaviour which may be assessed through criterion-referenced and norm-referenced tests. A continuous and comprehensive assessment of the students with end-term examinations will give a total picture of students' progress. Apart from achievement tests, quiz programmes, debates, seminar methods will be helpful in assessing the students. Growth in cognitive, attitudinal and skill domains over a period of time should be assessed to get a complete picture of student achievement.

Though the interpretation of criteria so far discussed may be different in different contexts, these nevertheless, serve as useful guidelines in assessment of teaching at higher level.

Finally, the list given by Lewis Elton and Brown as to what makes a good university teacher will be helpful to those who are interested in self-improvement. They provide us a set of characteristics exhib-

ited by good teachers : (i) Well-organised, (ii) Well-prepared, (iii) Interested in the subjects, (iv) Friendly, (v) Flexible, (vi) Helpful, (vii) Creative, (viii) Clear, (ix) Enthusiastic, (x) Interested in students, (xi) Open, (xii) Systematic and (xiii) Committed.

Only when the quality of teaching is good, higher education can successfully meet the dilemmas of quantity vs quality, accountability vs autonomy, creativity vs convergence, and equity vs excellence and face confidently the challenges of the twenty first century which is round the corner.

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### **INSTITUTE OF ADVANCED STUDY IN SCIENCE AND TECHNOLOGY KHANAPARA, GUWAHATI - 781022 ASSAM, INDIA.**

**Advt. No. 28.**

Applications on plain papers are invited for three positions of J.R.F. under a DST sponsored major project on "Development of Mathematical & Statistical Sciences Division, IASST, from the candidates having M.Sc. in Mathematics/Statistics with atleast 55% marks in aggregate. Preference will be given to the NET qualified candidates. Field of interest of the present faculty: Number theory, combinatorics, Special Functions, Probability & Statistics, Operator Theory & Harmonic Analysis. Fellowship: Rs. 2500-2500-2800/- P.M. + HRA and MA as per rules of the Institute. Applications with complete biodata with attested copies of certificates, Marksheets, etc. should reach the Secretary(i/c), Institute of Advanced Study in Science and Technology, Khanapara, Guwahati-22, Assam, on or before 30th June, 1996. No. TA/DA will be given for appearing at the interview.

## A New Look at Our History

P.M. Kamath\*

Being a Professor of Politics specialising in International Relations, particularly on National Security issues, it has been really difficult for me to read books outside my field. But students of Political Science cannot escape reading historical writings. As the cliché goes, history is past politics and politics is the future history. In the field of history in general, I read in the last year, the first volume edited by S.D. Kulkarni entitled *Beginnings of Life, Culture and History* (Bombay: Shri Bhagavan Veda-vyasa Ithihasa Samshodhana Mandira, 1988). Kulkarni is a retired administrator, belonging to Maharashtra State Service who had the distinction in Sanskrit literature and is committed to write 18 Volumes on Indian History and Culture. This book has left lasting impressions on me regarding Indian past politics and how British — as the last invaders of India — tried to distort Indian history.

The book is an intensive investigation into the origin of life, the theory of evolution and the pragmatic study of *Vedas* as a source of ancient world civilization. The book also discusses the problem of Indian chronology based on historical evidence. Many Western scholars according to this book were basically motivated, in discussing ancient Indian history to belittle Indian culture and civilization. Since the Biblical age did not extend beyond 4000 BC how can a vanquished people like Indians could claim to possess a hoary past? Archbishop of Ireland decreed in 1664 that creation took place at 9 a.m. on 23-10-4004 BC and one who will say anything else about it will be considered a heretic. "From this notion of theirs, they further smugly believed that Indians had no sense of history and so their claim to a hoary antiquity for their history was untenable. Of late this attitude of the Westerners is changing perceptibly. But the damage has been done." (p. 283)

Thus influenced by a cultural bias Western scholars have tried to place ancient Indian history at a date as recent as possible. In this regard the book takes views of many Western scholars and Indologists who have taken this line of argument, in particular, Max Muller. Max Muller placed earli-

est *Veda* around 1200 BC and latest at 600 BC. As a matter of fact, the composition of *Vedas* goes back according to this work to 8000 BC though it was reduced to written form later. Kulkarni based on *Rgveda* hymns arrives the date of *Vedas* as 20,000 BC. Though Bal Gangadhar Tilak too had arrived at the same date, he had rejected it as "too extravagant" (p. 290). *Vedas* constitute the best of the knowledge then known to Indians. It is an account of history, culture, science of the times. It is to be noted that *Rgveda* says that "Indra made the Earth to revolve around sun" (*Yat bhumim Vivartayat*). Though centuries later European scholars still argued it otherway round.

Another important issue discussed in this book is an artificial division created between Aryans and Dravidians by the Western Indologists. Actually Kulkarni argues that 'Aryan' as such is not a race. The term 'Arya' means civilised and does not appear in any source other than the *Vedas*.

The book attributes it, with evidence, to the British imperialistic policy of 'divide and rule'. It was easy, for India is a nation of many castes, customs, languages and religious affiliations. At a meeting of Royal Asiatic Society held on 9 April, 1866 with Rt. Honourable Viscount Strangford in the Chair, the point for discussion was "the progress of the successive waves of Aryan immigration from the Oxus into the province of Ariyana and Hindukush and downward course of the pastoral races from their first entry into the Punjab and the associated crude chants of the *vedic* hymns....."

The Imperialists as Kulkarni argues "wanted to din into the ears of the subjugated Indians that the Indians were always conquered by foreigners .... Then they spread the canard that these Dravidians who peopled India from north to south, were conquered by the Aryan barbarians some time in 1500 BC.... These latter day Indians were later on invaded by the Sakas, Huns and Greeks. So the story of India and Indians as pictured is one of constant defeat at the hands of foreigners and invading tribes." (p. 298)

This theory of Aryans versus Dravidians was further developed by the Christian missionaries from R. Caldwell to Heras. The discovery of Indus Valley Civilization further helped these Indologists

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to confirm invasion theory and place the date of Indus valley civilization to be around 3000 BC. In this they totally suppressed the fact that *Rgvedic* people themselves had declared that they are the civilizers of the world — *Kṛtvanto Viśvamarīyam* — after the glacial epoch and there are no such distinctive races as Aryans or Dravidians. As a result of this untenable theory, a deep rooted schism developed between Tamils of the South and rest of Indians.

Another issue the book highlights is the fact that Indians did possess a sense of history. Unfortunately, the view that Indians lack a sense of history, seems to have been accepted by many of Indian scholars too. In my opinion it is in general an accepted fact of life in India that we recognise our own scholarship if it is first recognised by the foreigners. This slavish mentality is the result of long colonial background of Indian psyche arising from a deference to the white man and our own English education. Be that as it may, "the fact is, far from lacking the sense of history, ancient Indians have produced innumerable works which are full of historical information".

But with some exceptions, Western scholars with their belief in Biblical knowledge, firmly thought that when their own sacred book is of recent origin, of hardly 1000 BC, how could others have history older than theirs? Thus, they discarded *Puranas*, epics as mythological records and not historical documents. On the other hand, *Puranas*, for instance, form a "record of history of primary creation, secondary creation, the geneologies of Kings and reigns of different kings. They also record the history of ancient dynasties."

As a student of international relations I see today how the European nation states, which came into being as a result of the treaty of Westphalia in 1648, have struggled to make war more humane. The efforts still continue. But Bharata War fought in 6000 BC the record of which is Mahabharata brings out clearly well established rules governing warfare. Thus for instance, it is recorded very clearly that war was fought on alternate days and wars were not fought during the night time which is the time for rest. What more example do we need to know that ancient Indians had humanised war much before the Europeans struggled to think in that direction?

That the Western Indologists were interested in denigrating Indian history, culture and civilization needs no further evidence. Yet, some more examples can be culled out from the book. Thus for instance, it mentions about Max Muller, who did a

great work of making Indian Sanskrit works available to Western scholars. But was it without a motive? This book tells us with evidence that it was with a motive to promote christianity in India. In a letter to his wife Max Muller wrote: "I hope I shall finish that work and I feel convinced, though I shall not live to see it, yet, this edition of mine and the translation of the *Veda*, will hereafter tell to a great extent on the fate of India and on the growth of millions of souls in that country. It is the root of their religion and to show them what the root is, I feel sure, is the only way of uprooting all that sprung from it during the last 3000 years" (Pp. 323-4).

Subsequently, he also wrote to Secretary of State for India in December 1866. "The ancient Indian religion of India is doomed and if christianity does not step in whose fault will it be?" He kept this urge to turn India into a christian state alive. He later wrote that India has been conquered once "but India must be conquered again, and the second conquest should be by education." This was achieved partially by Macaulay when he introduced English education.

Successive Indian scholars have continued this spirit of belittling ancient Indian achievements planted by Western Indologists. For instance, though patriotic and highly nationalistic. Rajaram Mohun Roy thought Sanskrit language extremely difficult, while, Ishwarchandra Vidyasagar said. "That the *Vedanta* and *Sankhya* are false systems of Philosophy is no more a matter of dispute." A large number of Indian intellectuals whose patriotic nationalism could not be doubted, have however, blindly followed the lead given to them by the Western scholars, uncritically. This attitude on their part helped to perpetuate inaccuracies and deliberate distortions and to treat ancient Indian History and culture as of no consequence. R.C. Dutta who wrote *History of Civilisation of Ancient India*, for instance, says in his preface: "I have freely quoted from them (the translations and other works) and I have seldom thought it necessary to consult."

I feel that it is high time that Indian scholars give a serious thought to consider and weed out distortions introduced in the study of Ancient Indian History and Culture and revise their own understanding of Indian history, international relations science, etc in an objective manner without wearing a Western mask. It is worth recalling what Swami Vivekananda said : "I will tell you something for your guidance in life. Everything that comes from India take it as true until you find cogent reasons for disbelieving it. Everything that comes from Europe take as false until you find cogent reasons for believing it."

## Varsity-Industry Nexus

**Professor S.K. Khanna, Chairman, All India Council for Technical Education, delivered the Convocation Address at the XIV Convocation of Shri Shahu Ji Maharaj Kanpur University, Kanpur. He said, "Industry must get involved in education by helping to update the syllabi according to its needs. On-the-job training and ultimate absorption in industry, are fields where, without the cooperation of industry, vocationalisation will be meaningless. One would like to see a day in the 21st Century when industry sets up its R&D centres in institutions of higher learning and funds them generously for meaningful research and for their own well-being." Excerpts**

I believe that higher education is the main instrument for "development" and "change". A university is a focal centre for higher education. Therefore, it has the important task of preparing leaders for different walks of life, namely, social, intellectual, political, cultural, scientific and technological. Universities have undergone major changes in recent times. In addition to their scholarly functions of teaching and research, they have also taken upon themselves the extension and developmental functions. The key role, however, is the generation, transfer and application of new knowledge. Universities exercise a great influence on societal transformation, scientific temper and industrial development. Human resource development (HRD) is an important activity of the University system which prepares human resources for all development sectors, including industry, agriculture, administration and public systems. Indeed, the economic development of any nation reflects the quality of its human resource development programmes.

When we became independent in 1947, we had only 19 universities and 636 colleges with a

student enrolment of about 1,06,000. In 1995, we have over 220 higher education institutions, including Universities, and over 8000 colleges accounting for 3,00,000 teachers and around 5 million students. Our Universities offer a wide variety of courses and programmes in all branches of humanities, sciences and technology. The best that the country has produced in science, technology, industry, trade, education, and even in politics and administration, owes its sprouting and blossoming to our university system. It is through this system that we have made significant advances during the last five decades in agriculture, atomic energy, space technology and in many other fields. No other developing country has attained as much self-reliance in the field of education and training as India has done. It is common knowledge that even advanced countries welcome and employ highly qualified personnel from India. We need to respect and appreciate our higher education system for its vastness and numerous centres of excellence.

Libraries and Computer Centres have been important resource centres in the Universities for pro-

moting programmes of teaching and research. Today, the concepts of libraries and computer centres have undergone a radical change. We now need to develop "Learning Resource Centre" based on information technology where, through Computers, their networking and use of revolutionary internet access, one would be able to refer to books, journals, data and other information locally, nationally and globally sitting right in front of the computer terminal. Universities in India should move expeditiously in this direction by merging their libraries and computer centres to create Learning Resource Centres with multi-media facilities.

Despite the expanse of higher education in our country, less than 6% of the relevant age group have access to it. Moreover, it is often argued that due to expansion, the higher education system has suffered on the quality front. Also we have a large number of educated youth who are neither employable nor self-employed. We have such contradictions.

In the technical education sector, our supply capacity has also increased manifold; yet it works out less than one per cent of the total enrolment. A large number of self-financing institutions have come up during the last two decades, and more so in the 90s. Here also with a sudden growth, the quality has suffered resulting in lower academic standards and mediocrity.

Higher education and national economy are linked with each other. While the economy provides the necessary resources for promoting higher education, the latter prepares, in turn, manpower.



er of varying specialisations and skills for productivity and growth and for improving the quality of the life of the people. Moreover, the programmes of higher education in theoretical and applied fields provide the perspective and the necessary framework for the formulation of appropriate policies for sustainable development. We cannot build a sustainable and prosperous India without human resource development which depends on the health and vitality of higher education.

For too long, our universities and colleges have been offering far too many courses of "general" nature repeating the same curricula without taking into account the changing needs, particularly now, due to the restructuring of the economy and the fast changing international scenario. In resetting our goals for the future, it is increasingly necessary to offer innovative courses of studies with a direct bearing on societal, national and international dynamics. Revolutionary inventions in electronics, tele-communications and satellite communications globally have drastically influenced our value systems and life in general. Our attitudes and ways of doing things have also undergone a sea change. Then how could our educational content remain constant? If we do not change our education system and educational content, our human resource would become obsolete.

Today no progress can be made in technology without appropriate (technical) human resource. This aspect is intimately related to technical education. Again, the level of economic development of a society or country depends on an adequate and up-

to-date involvement of technology. Following the world trends, we need to formulate programmes in accordance with our special needs. For this, too, our technical education has to be appropriately oriented in consonance with our short and long range objectives and strategies for proper implementation to achieve the desired goals.

An important function of the university system is to engage in research, i.e., to discover and disseminate. One charge against the university system has been that its research is produced in isolation. So, its relevance is often questioned. We should restructure our norms of governance of the Universities to encourage their greater participation in research, both basic and applied. In selecting the areas of research, the user system as a client should receive due attention. Research should not be pursued in a vacuum.

Although in the last decade, as compared with other developing countries, there has been significant progress in 'Research', yet compared to the developed countries, our inputs in terms of manpower and financial resources are far behind. In the developed nations, more than 5 persons per 1000 are engaged in R & D work whereas in India this participation is only 0.27. Again, 2-3% of the national income of these countries is spent on R&D whereas India spends only 0.89%. This becomes quite frustrating when we take into account statistics per person. The developed nations spend 100-600 US dollars per person on research work whereas India spends less than 3 US dollars per person.

As per recent estimates, the University system handles only 15% of those who are of college going age. The continuing education, through multi-media and distance education, is the only viable alternative. We have 5,76,000 villages with most of them having a population of less than 2,000; but they comprise 65% of the total population of India. To uplift the quality of their life, we need to include technical and vocational education bias in the large unorganised workforce by educating, retraining and imparting continuing education through conventional and non-conventional methods. This is a Herculean task. AICTE has appointed a committee under the chairmanship of Professor Yash Pal, former Chairman, University Grants Commission, to identify the problems and to develop strategies for implementation.

Financing of higher education alongwith the restructuring of our economy and making various sectors competitive within the country as well as globally is another major issue which we need to tackle. It may, therefore, be necessary to create additional resources for running expenses by instituting endowments, providing corpus fund with capital grants supplemented by raising resources. We need to generate funds from the beneficiaries, and from the industry for sponsored research. The Government of India has announced schemes with incentives like tax-exemption by providing 100% rebate to the donors and 125% rebate to the sponsors of R&D. As per a World Bank study, the gain to the University system upto 1994 has been only 0.6% of the total expenditure.



This is most discouraging. We need to examine various factors for such a low response. The main reason seems to be the criteria for granting eligibility to higher education institutions. If we have to involve the society at large in the resource mobilization, we should be liberal and open-minded and should launch a mass movement.

Acts and Statutes of the Central and State Sector Institutions should be amended for expanding their jurisdictions for establishing higher and technical institutions in the neighbouring countries as well. I pay my tribute to the Honourable Chancellor for his vision to enlarge the jurisdiction of all universities in U.P. state wide as a first step. The next step should include jurisdiction on all-India basis and beyond. This would make our University system dynamic and vibrant. And with this, our Universities should become competitive.

Our industry has also to come forward and invest in the education sector to ensure high quality manpower for their pursuits and programmes. The bridges between universities, scientific laboratories and industry have to be built and buttressed, if we must become a technologically strong nation. Prominent Indian industries, including the public undertakings, should adopt some educational institution as their own R&D house and in doing this, the research pursuits of our educational system would become rewarding. In return, the industry should bear some portion of the revenue expenditure of the educational institutions, particularly the research cost.

Industry must get involved in

education by helping to update the syllabi according to its needs. On-the-job training and ultimate absorption in industry, are fields where, without the co-operation of industry, vocationalisation will be meaningless. One would like to see a day in the 21st Century when industry sets up its R&D centres in institutions of higher learning and funds them generously for meaningful research and for their own well-being.

A further annual growth of 5 per cent in higher and technical education as exists at present can be encouraged within the premises with their ownerships by the Industry and the Research and Development Institutions including CSIR Laboratories for process, manufacturing products and design technologies. This should be with well-defined and prescribed networking with existing higher education Institutions. This strategy would save national investments and enhance their utilization of existing excellent infrastructural facilities of buildings, plants and equipment including the "down-to-earth" most competent and visionary human resource. It would also help in influencing the routine "class room" technology of the University system.

India has now introduced a free market economic policy encouraging Indian industry to enter the International Marketing and Trade. The new economic policy essentially puts us in the competitive global environment. "Survival of the fittest only" is becoming the catch word. The presence of multi-national industries is felt all over and in all bits and pieces of the Indian economy. A considerable pressure is being felt

on our rural economy and also on the unorganised sector. Thus we are exposed to a major challenge. We have no option except to change our higher and technical education system.

Thus education related to the "world of work" and leading to "self employment" is the need of the hour. Our Higher Education Institutions must actively participate in the eradication of large scale unemployment which is increasing by a million every year. Societal initiatives, autonomous institutions and full utilisation of existing infrastructure should be encouraged with proper policy and legal back up. Technical Education should by and large be self-financing and, at the same time, for needy students we should provide soft interest loans with simplified procedures.

In the 21st century, the role, place and shape of higher and technical education system is likely to undergo a phenomenal change. Education and research will be on centre stage and will act as main contributors to the economy, as participants in the alleviation of poverty, and as torch-bearers of human values and human sensitivity. Our country will then become economically strong, rational and secular.

Let us live and let live others happily and peacefully.

At the dawn of the 21st century, we would profitably look into the future of our higher and technical education system in terms of both "challenges" and "opportunities". With a massive system of higher education inherited by us, coupled with understanding and dedication, we are confident of dealing with challenges boldly and of achieving our cherished goals.

### Education for Excellence

Teacher training programmes should incorporate features that would help upgrade the confidence and communication skills of the teachers, said Mr. S. Rajarathinam, Commissioner of Collegiate Education. Besides the knowledge acquired teachers, especially those who begin the profession, needed confidence to face a classroom situation and communicative skills to share their knowledge with students. More than all these, teachers should be able to make students think creatively. Otherwise they would end up being mere conveyors of information. Mr. Rajarathinam was inaugurating a conference of All India Association for Education Research (AIAER) at St. Christopher's College of Education in Madras recently. The three-day meet dealt with the theme "Education for Excellence".

To achieve these ends, he felt teacher training programmes should be held at local levels, be flexible in sequencing of contents and focal areas, use diverse methods and materials and leave the "open ended questions for teachers themselves to solve, rather than attempting at giving them ready made solutions". He regretted that despite several attempts at educational reforms, "we in India lack behind the developed countries and our educational system is suited more for meeting the demands of the 19th century rather than that of the 21st century".

Prof. Purushothaman, Head of the Department of Educational Technology, Bharathidasan Uni-

versity said, "excellence in education" could be indicated by the quality of the thinking found within the products of the system.

Over 45 papers on facets of education were presented by experts at the conference which was presided over by Prof. B.R. Dewasthalee, former President of AIAER.

### LIS Education in Indian Languages

The Telugu University Library organised a National Seminar on LIS Teaching and Research in Telugu and other major Indian Languages at Hyderabad. The objective was to consider all the relevant issues, assess the problems and find appropriate solutions.

Inaugurating the seminar Prof. Tomati Donnappa, founder Vice-Chancellor, and former Chairman of the Official Language Commission, Govt. of A.P. said that since the students supplemented their classroom learning, almost by three times through the use of libraries, the authorities should give utmost importance to the development of the library in the university. He complimented Dr. Sankara Reddy, the University Librarian, Telugu University, for his single minded devotion in enriching the Telugu University collections and organising effective services.

Prof. Nayani Krishna Kumari, Vice-Chancellor, Telugu University, who presided over the function, opined that language

should not be a barrier in communication. Prof. M.V.Venugopal, Dept. of LIS, Osmania University, in his keynote address, spoke on various issues touching on the philosophical, linguistic, social, technological and educational aspects. He also stressed on relevance in terms of social needs, literature and culture and gave many suggestions for appropriate curriculum planning and standardization of programmes. Dr. M. Sankara Reddy, University Librarian, pleaded for collective action to ensure effective introduction of Telugu/Indian Language as medium of instruction in LIS teaching and research. He urged the professionals to rise up and face the challenges in successful implementation.

Over 65 delegates, from various parts of the country participated in the seminar at which a total of thirty three papers were presented and discussed in 5 technical sessions.

The topics discussed at the seminar included: (i) LIS education in Telugu: Restrospect and Prospect; (ii) LIS Education in other major Indian Languages; (iii) LIS Education — problems and perspectives; and (iv) LIS Research and Creativity.

At the end of the concluding session, the following resolutions were made:

1. While Telugu/Indian Language is medium of instruction at the level of certificate course in LIS, the same may be made additional medium of instruction at the Bachelor Degree Programme. In view of the inadequacies of Telugu/Indian Language as the

medium of instruction in LIS Education and the consequent likely ill effects on educational standards, English may have to be perforce continued for some more time as the medium of instruction at the Master Degree level. However, students who may opt to write their exams at the Master Degree level in Telugu/Indian Language may be permitted.

2. In view of the many and obvious practical problems inherent in imparting LIS Education through Telugu/Indian Language as medium of instruction, particularly at the higher level programmes, the general consensus favoured i) compilations of Glossories/Vocabularies, and comprehensive Bibliographies of LIS literature in Telugu/Indian Languages, ii) Translation of useful and essential English Publications into Telugu/Indian Languages, iii) Governments encouraging writing and publishing of LIS books in Telugu/Indian Languages through subsidies and financial assistances, and iv) Institution and regular publication of LIS Journals in Telugu/Indian Languages, so as to encourage research, original writing and increase literature.

3. It was felt incumbent on the part of the Telugu University to shoulder many a responsibility by creating a research wing in Telugu University Library with a long term agenda for a) research programmes/projects to support the cause of LIS Education in Telugu and also develop literature covering various aspects and permeating other related fields, b) encouraging and if necessary sponsoring publication of books in LIS and render financial assistance, and c) organise and conduct similar seminars workshops

on regular basis.

4. Dr. B.R. Ambedkar Open University as a pioneer Institution in Distance Education, it was felt, should make available the present BLISc. course material and also the course material of the intended MLISc. Programme both in Telugu and English. Further, it was also felt desirable that the Dr. B.R. Ambedkar Open University should organise workshops or other programmes on translation methods and techniques for the benefit of LIS professionals.

5. As a necessary measure of encouragement to teaching and learning of LIS in Telugu/Indian Languages, the UGC may be urged to arrange to set the NET papers in Telugu/Indian Language also.

### **CSIR Information Consortium**

A meeting of the heads of libraries and information centres operating at the various laboratories run by the Council of Scientific and Industrial Research (CSIR) all over the country is reported to have taken a decision that from January onwards, information related to scientific papers would be made available on optical disks, at a grossly reduced price as compared to printed journals.

The first disk would contain about 30,000 abstracts in the field of chemical sciences. Five other subject fields would be covered, possibly at intervals of three months.

The meeting was the third one, since the idea of constituting an "information consortium" was born about three years ago.

The project has been approved by Dr R.A. Mashelkar, Director-General of the CSIR.

Scientific managers believe that the consortium is attractive in terms of savings on expenditure incurred in purchasing and abstracting journals, besides catering to the resource-strapped research environment of the 90s.

According to Prof T. Viswanathan, Director of the Indian National Scientific Documentation Centre, the electronic form of information would cost only one-thirtieth of the subscription price of printed journals.

The initiative is meant to offset the high cost of international journals, which has seen a large number of important journals vanishing from the best of libraries. In chemical sciences, for instance, only 42 of the 200 journals that used to be procured are available these days.

The INSDOC, which is also one of the laboratories of the CSIR, will coordinate the preparatory work and functioning of the information consortium.

While inviting suggestions from library scientists of CSIR, a broad orientation was worked out for the consortium during a three-day workshop organized by the Indian Institute of Petroleum.

Summing up the failure of earlier high-sounding information projects launched by certain government agencies, a consensus of sorts emerged to build up the consortium in a phased manner.

From chemical sciences, physical, biological, information, engineering and earth sciences, the consortium will create six broad areas within which the CSIR operates.

*(Contd. on page 18)*

# SPREAD SHEET

## Technical Education in India (2)

STATE-WISE ACTUAL AND EXPECTED OUT-TURN OF POST GRADUATE STUDENTS

S.No.	State	No. of colleges	Actual out-turn			Expected out-turn			Total of		
			1990	1991	1992	1993	1994	1995	87,88,89	90,91,92	93,94,95
1	Andhra Pradesh	8	397	354	350	368	385	398	500	1101	1151
2	Assam	1	9	6	11	12	12	13	70	26	37
3	Bihar	6	83	132	159	168	180	191	271	374	539
4	Gujarat	7	235	247	226	240	252	259	201	708	75
5	Goa	2	13	15	15	16	16	17	20	43	49
6	Haryana	2	26	31	34	37	40	44	94	91	121
7	Karnataka	21	565	593	620	660	669	734	1321	1775	2093
8	Kerala	6	171	174	159	165	171	178	186	504	514
9	Maharashtra	16	572	579	660	704	736	772	1343	1811	2212
10	Madhya Pradesh	8	166	223	187	234	262	287	335	576	783
11	New Delhi	5	399	407	434	449	464	478	1128	1240	1114
12	Orissa	2	32	22	40	44	48	52	129	94	114
13	Punjab	5	108	129	136	146	156	162	231	373	464
14	Pondicherry	1	0	0	0	0	0	0	0	0	0
15	Rajasthan	4	118	201	393	414	436	459	557	712	1309
16	Tamilnadu	12	1209	1147	1377	1437	1496	1554	2659	3733	4487
17	Uttar Pradesh	14	781	711	805	847	879	911	1904	2297	2637
18	West Bengal	11	571	680	725	757	788	815	1330	1976	2360
GRAND TOTAL		131	5455	5651	6331	6698	7020	7324	12279	17434	20765

REGION-WISE ACTUAL AND EXPECTED OUT-TURN OF POST GRADUATE STUDENTS

S.No.	Region	No. of Colleges	Actual out-turn			Expected out-turn			Total of		
			1990	1991	1992	1993	1994	1995	87,88,89	90,91,92	93,94,95
1	Eastern	20	695	840	935	981	1028	1071	1800	2470	3080
2	Northern	30	1432	1479	1802	1893	1975	2054	3914	4713	5645
3	Southern	48	2342	2268	2506	2630	2751	2864	4666	7113	8245
4	Western	33	986	1064	1088	1194	1266	1335	1899	3138	3795
Grand Total		131	5455	5651	6331	6698	7020	7324	12279	17434	20765

TYPE OF INSTITUTION-WISE ACTUAL AND EXPECTED OUT-TURN OF P.G. STUDENTS

S.No.	Type of Institution	No. of Colleges	Actual out-turn			Expected out-turn			Total of		
			1990	1991	1992	1993	1994	1995	87,88,89	90,91,92	93,94,95
1	Type A	6	1602	1664	1798	1876	1957	2043	5038 (41%)	5064 (29%)	5599 (27%)
2	Type B	11	1125	1074	1256	1285	1314	1343	1429 (12%)	3455 (20%)	3942 (19%)
3	Type C	12	487	549	607	642	680	721	1241 (10%)	1643 (9%)	2043 (10%)
4	Type D	15	1104	1211	1459	1571	1655	1750	2390 (19%)	3774 (22%)	4976 (24%)
5	Type E	87	1137	1153	1211	1324	1414	1467	2181 (18%)	3498 (20%)	4205 (10%)
GRAND TOTAL		131	5455	5651	6331	6698	7020	7324	12279	17434	20765

Legend:

Type A : All IITs and IISc, Bangalore

Type B : Universities/University faculties

Type C : Regional Engineering Colleges (RECs)

Type D : Bigger Size Engineering Colleges (Av. out-turn during 1990-92 more than 50)

Type E : Small Size Engineering Colleges (Av. out-turn during 1990-92 less than 50)

Source: J.P. Shrivastava. A Critical Review of Present and Future Post Graduate Technical Education in India. *The Indian Journal of Technical Education*, Vol. 18, No. 2, April-June 1995.

(Contd. from page 15)

The information will be stored on optical disks and made available to industries and academic institutions at a cost of Rs 20,000.

To promote the venture, a CDROM drive will be supplied free of cost if an institution is willing to buy two subscriptions of the electronic journals.

A decision was also taken not to go in for networking at this stage, although the availability of on-line information would make it most up to date and be in line with the sophistication levels in developed countries.

Through the consortium, the CSIR intends to save Rs 50 crores spent on acquiring secondary journals which contain abstracts of research papers.

The CSIR-INSDOC team is also about to launch a nationwide library automation scheme that could reach out to most of the 65,000 libraries of the country. A software package called Granthalaya is being developed for the purpose.

After the package is launched later this year, the CSIR would be in a position to automate 20,000 libraries each year at a minimum cost of Rs 0.5 million per automation.

### **Literacy Awards 1996**

The Indian Adult Education Association, New Delhi has instituted two literacy awards — Nehru Literacy Award and Tagore Literacy Award — for outstanding contribution towards the promotion and development of literacy and awareness among adult men and women in India.

The awardees for the Nehru

Literacy Award and the Tagore Literacy Award will be selected from a panel of names recommended for the purpose by the members of the Association, the State Education Departments, TLC/PL/CE Districts, Universities and voluntary organisations or institutions in the field of adult education. The selection of the awardee will be made on a yearly basis by a Committee consisting of a Chairman and six members to be appointed by the Executive Committee of the Indian Adult Education Association.

The types of work which will be considered for the Awards include i) Literacy work among Non-Literates, ii) Post-Literacy work for Neo-Literates, (iii) Continuing Education work, iv) Organisational work, v) New Teaching Devices and Improved Teaching Material Developed.

The Association invites nominations for 1996 Awards. The recommendations for these Awards should reach the Association latest by July 15, 1996. The names of the Awardees will be announced on the eve of International Literacy Day i.e. September 8.

Further details may be obtained from Mr KC Choudhary, General Secretary, Indian Adult Education Association, Shafiq Memorial, 17 B, Indraprastha Estate, New Delhi - 110002, India.

### **Seminar on Vocationalisation**

"Education and proper utilisation of human resources to produce highly skilled labour has become vitally important, in view of the fast changing labour market favouring increased competitiveness, productivity and innovations in business", said Mr.

Khurshed Alam Khan, Governor of Karnataka. He was inaugurating a seminar on the 'Vocationalisation of Education' in Bangalore recently. He said there was a need for effective vocational training institutions. The Governor also stressed the role of public and private partnership in making a strategic contribution in improving the relevance, effectiveness and efficiency of training systems by adapting them to the requirements of the markets.

Stating that vocationalisation was one of the steps to redress the problem of an increasing number of educated unemployed, Mr Khan said in fact, it would have to be one of the major inputs if any success was to be achieved in solving the problem. This would not only generate opportunities but also reduce pressure on the government to create employment opportunities with less than optimal productivity, he added.

The Governor also said that thought should be given to the establishment of rural universities, catering to small and compact areas to bring about a better understanding and to alleviate the problems of the rural poor. The urban universities, on the other hand, needed to address themselves to industrial and commercial issues and to the complicated socio-economic issues of modern cities.

He said educated unemployment and social disorganisation were the result of the blind expansion of higher education without attention being paid to diversification to meet the aspirations of the people. As on 1993 there were as many as 36.27 crore persons on the live registers of employment exchanges in the country, he pointed out.



Mr Khurshed Alam Khan also pointed out that the process of economic liberalisations had reached a crucial phase and to give it further impetus a new thrust had to be given to human resource development.

Delivering his address on the theme 'Unemployment of the Educated' International Labour Organisation Director Dr Rizwanul Islam said employment of the educated could be affected by factors on both the demand and supply side. While 'employability' (relevance of education received to the jobs available) was often said to be a key role, students were often thought to have unrealistic expectations about careers, wrong notions about employment prospects and unrealistic expectations about the characteristics of the job and the salaries.

The ultimate result of a combination of both the factors could be a crowding of specialisations which were not in particularly high demand in the labour market and an inability of the labour market to meet the high expectations of the job-seekers.

Though enrolment in secondary and higher education in India was behind other South East Asian countries, yet the fact that the number of educated unemployed was high, pointed to a structural imbalance in the labour market for the educated whereby the education system was producing without regard for the needs of the labour markets.

Dr Islam pointed out that one issue lost sight of was that the organized sector accounted for a small segment (typically less than 10 per cent) and formal vocational training was usually designed to cater to this segment of the economy alone. The skill require-

ments of the unorganized sector were not normally addressed by such training, he added.

FICCI Education Committee Chairman Dr S K Somaiya suggested that a Vocational Education Act be passed for regulating vocational education and easy access to training on the lines of the Apprenticeship Act which controlled and regulated the training of apprenticeship.

He also called for flexibility in the scheme of vocational education so that a student could complete the course at his convenience and in his own time. Moreover, Dr Somaiya said, recruitment policy of employing agencies needed to be modified to treat vocational qualifications on par with the equivalent academic qualifications.

FICCI President Deepak Banker said studies had shown that more than two-thirds of the rapid growth of the high performing Asian economies was contributed by human skills coupled with physical labour. Though India had made substantial progress on the economic front what was required was to continue the economic reforms with a human face. With the number of jobs to be created by the year 2002 being 94 million, promotion of self-employment and reorientation of skills to suit the labour market were extremely important.

The seminar was organised by the Federation of Indian Chamber of Commerce and Industry and Federation of Karnataka Chamber of Commerce and Industry.

### **PR Education Panel**

Mr. Arvind Chaturvedi, Director General, Makhanlal Chaturvedi National University of Journalism, will head the Public

Relations Education Promotion Committee set up by the country's apex body, Public Relations Society of India (PRSI). The 21-member Committee includes eminent Public Relations academics, professionals and administrators from various parts of the country. They include, among others, Prof. K.V. Magaraj (Mangalore), Prof. Durga Bhavani (Tirupati), Dr. Baldev Raj Gupta (BHU), Ms. Avanthi Bhavani (Bombay), Mr. V.S.R. Naidu (Hyderabad) and Prof. C.K. Sardana (Bhopal).

The formation of the Committee follows parleys in different fora, according to which, there is an urgent need for an in-depth review of the present status of PR education in the country in the backdrop of challenges thrown by a highly competitive and result-oriented economy and recommendations for uniformity in this field.

Mr. M.B. Jayaraman, National President, PRSI said "there could not be a better and more experienced panel of experts to handle the matter and more appropriate person than Mr. Chaturvedi, who heads the only statutory University exclusively devoted to education, training and research in Journalism, Public Relations and Information Sciences."

It may be recalled, Public Relations education and training is of recent origin in our country. Such courses are run by a few universities and professional institutions.

The establishment of a University at Bhopal in 1990 marked a major step forward in this field. Besides education, training and research, Makhanlal Chaturvedi University has close contacts with several NGOs, professional insti-



tutions and experts in Journalism, Mass Communication and allied fields.

### **INSA Medals for Young Scientists**

The Indian National Science Academy is reported to have selected 13 scientists for this year's INSA Medal for Young Scientists. The medal is given to scientists below 32 years of age in recognition of their achievement in any branch of science and technology within the purview of the Academy.

The award carries a bronze medal, a certificate and a cash award of Rs. 25,000. In addition, the recipient may be considered for a research grant of the Academy up to Rs. 5 lakhs for a period of three years. Preferential consideration will also be given for attending conference/pursuing collaborative research under bilateral exchange programme with overseas academies. An awardee, who is unable to obtain suitable placement, can also be considered for an interim fellowship.

The Anil Kumar Bose Memorial Award for the year 1996 has been given to Dr. Shyamalava Mazumdar, Chemical Physics Group, TIFR, Bombay, and Dr. P. Guptasarma, Welcome Trust Resident Fellow, Department of Biochemistry, University of Cambridge, U.K.

The presentation of the awards will be made at the Annual General Meeting of the Academy on October 8 at the Academy premises in New Delhi.

The young scientists selected for the INSA Medal are: Mr. Jayanta Basak, Dr. (Ms) Charusita Chakravarty, Dr. Srivari Chandrasekhar, Dr. Manoj Kumar Dhar, Dr. (Ms) L. Geetha, Dr. Kartik Chandra Ghosh, Ms. Saman

Habib, Dr. Sanjay Kumar, Dr. Viswanathan Kumaran, Dr. Siddhartha Mukhopadhyay, Mr. Bakthisaran Raman, Dr. Nimish Arunbhai Shah and Dr. (Ms) Pratima Srivastava.

### **Certificate Programme for Laboratory Staff**

The Indira Gandhi National Open University (IGNOU) is reported to have decided to launch a certificate programme in Hindi and English for laboratory staff in science laboratories of schools and colleges.

Prof R.K. Bose, the Director, School of Sciences of the IGNOU said the programme would be completed in a minimum of 6 months and maximum of two years. Similar programmes in regional languages are also proposed by the IGNOU depending

upon the need and response.

Those with 10+2 with science equivalent or 10th standard with science or equivalent and two years experience in a laboratory or with 11th standard with science or equivalent and one year experience in a laboratory can enroll for this programme.

The broad objectives of the programme, according to the IGNOU, are to familiarise learners with the facilities available in science laboratories and to train them to develop skills of common laboratory techniques.

Later, advanced modules suitable for laboratory technicians working in universities, national laboratories and research and development laboratories of industries would be developed and offered in the form of diploma programmes.

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## ***News from AICTE***

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### **Technical Education in the Ninth Plan**

The Technical Education including Management Education recognised as one of the most potent means for skilled manpower required for developmental task of various sectors of economy is poised to meet the biggest ever challenge in the 9th Five Year Plan which is being launched against the back drop of momentous changes taking place in the economic frontiers of the country. These changes have profound impact on both the structure of Indian economy and its relationship with the world economy with the result that the country has embarked on bold measures and initiatives to reforming and restructuring its economy thereby opening up to the forces of competi-

tion, both domestic and foreign. The wave of economic reforms sweeping the developing world and the hitherto centrally planned economy has important implications for India too.

Tasks for the 9th Five Year Plan *inter-alia* emphasised following: Consolidation and Regulating the Growth of Technical Education; Human Resource Development in Technical institutions; Quality Assurance and Excellence in Tech. Education; Promotion of R&D and Entrepreneurship Development; Institutional Thrust; Special Programmes for (i) Women (ii) Physically Handicapped and Weaker Sections of the Society; Rural Development

Programmes; Entrepreneurship and Management Education for the un-organised sector; Upgradation of Responsibilities for Professional Societies/Academies; New Schemes; Resource Mobilisation; and Mission Mode Programmes.

## ***News from UGC***

### **Countrywide Classroom Programme**

Between 24th to 30th June, 1996 the following schedule of telecast on higher education through INSAT-ID under the auspices of the University Grants Commission will be observed. The programme is presented in two sets of one hour duration each every day from 6.00 a.m. to 7.00 a.m. and 1.00 p.m. to 2.00 p.m. The programme is available on the TV Network throughout the country.

**1st Transmission**  
6.00 a.m. to 7.00 a.m.

**25.6.96**

"Question Time"  
"The Glorious Legacy of the Marathas of Thanjavur-Part 2"  
"Reconstructive Microsurgery"

**27.6.96**

"Metal Casting"  
"Montessori System of Education"  
"Speak the Speech - Part 2"

**29.6.96**

"Geometry Made Simple"  
"The Working Children of Kashmir"  
"Tackling a Landslide"

**30.6.96**

"Rabindra Sangeet - Part 3"  
"Father of Hybrid Rice"  
"The Week Ahead"

**2nd Transmission**  
1.00 p.m. to 2.00 p.m.

**24.6.96**

"The Week Ahead"  
"Medical Physicists in India - Part I"  
"Human Resource Development- Part 12 : Participative Management"

**25.6.96**

"Radioactivity-Part 2"  
"Keep the Crab Away - Preventing Cancer"

**26.6.96**

"Renewable Energy"  
"Ramparts of Heaven - The Himalayas"  
"The Miraculous Cosmos of the Brain : Don't Trust Your Eyes"

**27.6.96**

"Coherent Optical Fibre"  
"What is a Rock"

"Nadine Gordimer"

**28.6.96**

"Sun, Earth, Space Environment - Part II: Sun and its Corona"  
"Women in Profession: Media and Women - Part I"  
"Nature's Comeback"

**29.6.96**

"Interviews on AID"  
"Kalaripayat"  
"Young Scientist"

**30.6.96**

No Telecast

### **Hindi Telecast**

प्रातः 6.00 से 6.30 बजे तक

**24.6.96**

1. "ग्वार-पुरातन तत्व, नवीन प्रयोग"  
2. "कथा व्यथा"

**26.6.96**

1. "अतीत की कहानी इमारतों की जुबानी"  
2. "जरा सोचिये"

**28.6.96**

"आज का हिन्दी साहित्य"

### **We Congratulate .....**

Dr. Patangrao Kadam who has been named Chancellor of the Bharati Vidyapeeth — Deemed University, Pune.

## ***News from Abroad***

### **World Heritage Review**

To raise public awareness of the world's cultural and natural heritage, UNESCO recently released a quarterly publication called World Heritage Review. This new international magazine has been brought out in English,

French and Spanish.

The first issue of this 80-page review was launched at a ceremony on a boat on the Seine in Paris. In 1991, Unesco selected the banks of the Seine as a World Heritage Site in recognition of the

architectural masterpieces that line its shores. The World Heritage Review familiarizes readers with many of the 469 sites included so far on the World Heritage List. It is targeted to an international audience, particularly those interested in conservation and environmental issues. Each publication is to feature in-depth articles and colour photographs on cultural monuments and natural sites.

Mr. Bernard von Droste, Director of UNESCO's World Heritage Center, said that "long-lasting world heritage conservation is only possible through public awareness and education."

The first issue takes readers to Angkor Wat, then down the historic pilgrim route to Santiago de Compostela in Spain; it examines

the biological diversity of heritage wetlands, and learns what new archaeological discoveries have revealed about the Mayan Civilization.

The World Heritage Review

is part of Unesco's continuing campaign to promote heritage of universal value. A portion of the magazine's revenue will go to the World Heritage Fund established to safeguard this heritage.



## Indira Gandhi National Open University

**Schedule of Telecast for the period 21st June to 30th June, 1996**  
6.30 am to 7.00 am

Day/Date	Academic Programmes	Title
21.6.96 Friday	Management	Leadership Style
24.6.96 Monday	Bachelor's Degree Programme	Irrigation Channel
26.6.96 Wednesday	Diploma & Certificate Course	Technology Application in Distance Education
28.6.96 Friday	Management	Management and Shastras

## THAPAR INSTITUTE OF ENGINEERING AND TECHNOLOGY, PATIALA

(DEEMED UNIVERSITY)

### ADMISSION NOTICE

Four seats, one each in Mechanical, Electrical, Civil and Chemical Engineering are reserved for candidates being Foreign Nationals/Foreign National sponsored/NRIs/NRI sponsored for admission to Bachelor of Engineering Degree course. The candidates should have passed the qualifying examination (10+2 or its equivalent) from abroad/India with atleast 60% marks in aggregate of Physics, Chemistry and Maths and pass in English as compulsory/optional subject. Admission will be made strictly on Merit. The candidates who have passed the aforesaid qualifying examination in India must produce the valid passport. The tuition fee for this category of candidates shall be 5000 US Dollars per annum. All other fees will be same as for other local students. They are not required to appear in The Common Entrance Test (CET).

Information Brochure alongwith Admission form can be had on payment of Rs. 125/- at the counter or by Registered parcel from the Registrar of the Institute by remitting Rs. 150/- through Bank Draft in favour of the Registrar, Thapar Institute of Engineering and Technology, Patiala Payable at Patiala. THE LAST DATE FOR RECEIPT OF COMPLETED APPLICATION FORMS IS JUNE 28, 1996.

**REGISTRAR**

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## BOOK REVIEW

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### A New Addition to Marxist Literature

Madhabendra Nath Mitra\*

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**Kenneth Neill Cameron. *Dialectical Materialism and Modern Science*. New York, International Publishers, 1995. Pp. 245. \$ 10.95.**

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Kenneth Neill Cameron (b.1908) who is well known as a Shelley scholar also contributed to Marxist literature. He received the Distinguished Scholar Award of the Keats-Shelley Association of America for his works on Shelley. He also wrote extensively on Marxism. The book under review is the author's third and the last book on Marxism which deals with the relation between dialectical materialism and modern science. His second book is entitled *Marx and Engels Today: A Modern Dialogue on Philosophy and History*. The first one entitled *Humanity and Society: A World History* is a book on the history of the world.

Karl Marx himself never used the term 'Dialectical Materialism' in any of his writings. The Russian communist G.V. Plekhanov first used the term to mean the world view propounded by the philosophy of Marxism. Marx himself never intended to write a philosophical treatise for he thought that philosophical doctrines had always been used to serve the purpose of the superior class interest. Ideologies based on such philosophies had always been the instrument of exploitation of the weaker section of the society by the powerful ruling

class. Marx wanted to bring in a revolution to stop this exploitation of the poor by the rich and he thought that this revolution would destroy all philosophies by making them unnecessary. That is why it is sometimes observed that for Marx *Marxist philosophy* would be a contradiction in terms.

Cameron seems to be aware of Marx's intention, yet he agrees with the later Marxist thinkers that 'Marxist philosophy' is not a contradiction in terms if we take the word 'philosophy' not in the sense in which Marx despised the word. Following Plekhanov he employed the term 'Dialectical Materialism' to indicate the philosophy of Marxism which includes the philosophies of Marx, Engels and Lenin.

The book contains eight chapters with subsections, in addition to a very brief introduction. In the introduction the author tells us what is the book about. He maintains that the relation between dialectical materialism and modern science is such that the former alone can be the philosophical basis of the latter. All other philosophies which are called by Marx bourgeois philosophy are not consistent with the tremendous development of natural sciences. Cameron wants to show that the recent discoveries in both natural and social sciences confirm not only the thesis of materi-

alism but also the thesis of *dialectical* materialism. He also wants to show that the multidimensional development of modern science 'have thrown new light on what we are, where we came from and where we may be going.' After examining the dialectical materialist views of Marx, Engels and Lenin, he tries to explore the implications of dialectical materialism for personal life and values, which he has done in the last chapter of the book.

In order to establish Marx's idea that all philosophies over the past centuries arise out of conflicting class interest, it is necessary for the author to travel the path of the course of philosophy, which he has done in the first chapter of the book. In performing this task the author takes the classical Marxist line to interpret history. Standard criticisms against the Marxist interpretation of history in general apart, it may be said that quoting convenient and relevant passages from different philosophical discourses in order to confirm the Marxist analysis and interpretation does not justify the interpretation. For it is not at all difficult to obtain confirmation of any and every theory if we look for such confirmations. All of us are aware that this point is developed and elaborated by Karl Popper in his various writings. Besides, there always remains the scope of misinterpreting a passage in order to fit it in with a fixed interpretation. As an example of a possible misinterpretation it may be pointed out that the interpretation of the passage rendered in English (on p.11 of this book) from *Srimadbhagavad*

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*Gita* which is a part of *Mahabharata* seems to be too simplistic and superficial. The interpretation is given without considering the background and context in which Krishna explains and advocates a deterministic thesis based on the theory of *karma*. Besides, even if it is admitted that the theory of immortality of soul gives us the moral sanction for slaughter, it does not follow that Krishna's advice to Arjuna amounts to the thesis that 'the ruling-class leader should not hesitate to lead the masses to destruction'. On the contrary, if someone carefully follows the chain of events leading to the battle of Kurukshetra, it will perhaps be more natural, if not reasonable, for him to interpret Krishna's advice as advocating the thesis that the evil forces existing in the mind of the ruling-class (the Kaurava in this case) should be destroyed without any hesitation, and one should not think that this act of destruction of the evil is immoral even if it involves killing those who stand behind this evil force. Thus even if it is admitted that immortality of soul provides moral sanction for slaughter, it will be too far fetched to conclude that it gives the moral sanction for any and every act of killing and destruction especially if it is performed by the ruling-class. The conclusion simply does not follow from the premises. Examples may be multiplied to show that there may be reasonable alternative interpretations of history. The actual point of criticism here is regarding the veracity of this interpretation of history itself. This issue is not addressed by the author in spite of the fact that there are powerful arguments against it. Of course, one may say here that this type of criticism stems from a misunderstanding regarding the purpose of the author in this book.

Perhaps the purpose of the author here is not to vindicate different theories of Marxism against its opponents. The main purpose of the author here is to show how well the modern science fits in with the thesis of dialectical materialism. The first three chapters give a critical exposition of the views of Marx, Engels and Lenin, the three classical architects of what is later described as the thesis of dialectical materialism. The remaining five chapters are the real contribution of the author to the Marxist literature, where he tries to vindicate how discoveries of modern science corroborate dialectical materialism.

In chapter II Cameron discusses the views of Marx and Engels. He discusses here how the modern materialism of Marx and Engels differs from the classical materialism. To this general materialist view Marx and Engels added the evolutionary perspective, from "the lower organisms right up to the thinking human brain," which suggests that the brain has the capacity to reflect nature because it grew out of it and is still part of it.' He also discusses in this chapter the meaning and significance of scientific dialectics, Engel's insight and error, difference between Marx and Engels, relation between dialectical and historical materialism, and the limits of Marxism-Leninism. The entire chapter is a critical discussion of the views of Marx and Engels showing the advantage of dialectical materialism in general over the other philosophical positions that have always been and are still being rigorously pursued to maintain the class interest. Although the author agrees with the general insight of Marx and Engels, he criticizes some of their specific theses which may have to be revised in the light of the recent develop-

ments in science.

Chapter III entitled 'Lenin' is devoted to the views and opinions of Lenin on religion and its relation to Marxism, and various other problems that are faced by him as the major architect of an emergent proletarian state. The author discusses here the major contribution of Lenin to Marxist philosophy and is of the opinion that Lenin's contributions make advancements to the materialist philosophy, which go beyond Marx and Engels in some respects. The author again shows his sensitivity to point out the errors committed by Lenin acknowledging at the same time his brilliant insights. In an end note of this chapter Cameron has given a very brief and excellent summary on the dialectical method where he discusses how the dialectical method originated with the philosophy of Heraclitus, how did it take its shape in the hands of Lucretius, Diderot and Holbach; and how Hegel, an idealist philosopher and an ancestor of bourgeoisie philosophy could give birth to a dialectical philosophy. Marx and Engels gave it a new dimension by attaching it with materialism and applying the method both to the natural and social sciences. What is interesting and novel in this note is that the author applies here his scholarship and expertise in literature showing how the development of Shelley's work could be seen as following a dialectical process.

The remaining five chapters make an attempt to interpret the latest discoveries of science from the standpoint of the thesis of dialectical materialism. The growth of knowledge in different branches of science has been so fast since the time of Marx and Engels, one may legitimately wonder whether the philosophy of dialectical



materialism as propounded by them may still be shown to be consistent with this new scientific growth. Cameron observes that although the very concept of matter along with some other important concepts have been radically changed, yet 'they have all proved to be of a materialist and dialectical nature — of blindly clashing entities producing qualitative change — the new — by quantitative and arrangement change, and nothing else.' Integration and disintegration of various particles, in other words, are responsible for qualitative changes, no supernatural entities need to be supposed for bringing about this qualitative change. Cameron takes the 'basic works of scientific exposition from Steven Weinberg to Stephen Jay Gould, and try to integrate what we now know of matter, living matter and people into an ever-expanding dialectical-materialist view.' He further observes : 'Future developments will, of course, render much of this obsolete but, as with the 19th century science explicated by Engels, much of it will remain valid even though within new perspectives.' In discussing the nature of the universe in the light of recent researches Cameron argues that the universe is, in essence, conflictive which again shows its materialist and dialectical character. Man, universe and life did not develop in isolation and mechanistically; they act and interact on each other making a dialectical progress. He rejected the Cartesian dualism which asserts that consciousness is the essence of mind and extension is the essence of matter — mind cannot be extended and matter cannot be conscious. He also does not accept the view of the classical materialists with their reductionist ontology asserting the identity of mind with matter. Like a true dia-

lectical materialist he seems to hold that mind and matter are different and opposite to each other; but they form a unity in which the material is the basic and primary in the sense that matter can exist independently of mind, the opposite being false. In view of the recent development in neurological and psychological researches the general dependence of mind on brain which is a part of the material body is established. Thus consciousness can be seen as a by-product of matter, one evolving from the other without any gap or discontinuity between them.

One of the points of discussion in the sixth chapter entitled 'Brain, Body and Sex' is to answer the challenge of some feminists who interpret Marx's view regarding the exploitation of female by male as anti-feminist. These feminists argue that the feminist movement should not be seen as a part of the communist movement in general, it has a separate identity. Cameron comments that these feminists 'generally presume that we all begin life with a clean psychological slate on which virtually anything can be written. It fails to explore the basic area of the interplay of biopsychological and social forces and this lacks depth in some areas.'

In the next chapter entitled 'The Imprint of Evolution' Cameron challenges some of the socio-biological views originating from researches related to socio-biology that are used by the racists, sexists and imperialists for their own purposes. He reinterprets them from the Marxist standpoint and concludes with the remark that 'not only biological life and the human "thinking brain" have evolutionary histories which explain their existence but human society does

also. ....we can see how human society emerged from sub-human society and the path it has traversed to the present. We can also see the forces, social and natural, that will determine the future. Some of these, unanticipated by Marx and Engels (or Lenin), present both new perspectives and terrible challenges.' The last chapter entitled 'Life, Death and Purpose' lays emphasis on life rather than death and after-life which are more emphasised by religion. The chapter bears the mark of a reputed scholar of literature.

The book is definitely an important addition to the Marxist literature. The literary style of writing makes the book an enjoyable reading. To sum up, the book gives a faithful and clear account of the philosophy of dialectical materialism which may be summarised by saying that man is born, grows into maturity in and through dialectical processes and then passes away from the face of this earth. Death is the end of everything. There is no after-life, no supernatural being like God. Man is a product of the evolutionary process, starting from material particles continually developing dialectically without any break or gap in the chain of development. In addition to giving an account of the philosophy of dialectical materialism, the author tries to connect the thesis of dialectical materialism with the results of recent discoveries made in the fields of both natural and social sciences, which seems to constitute the main purpose of the book. Many subtle points and many interesting arguments could not be covered in this brief discussion. Some of the ideas are discussed so briefly that one may be led to misinterpret the actual intention of the author. The only remedy is to read the book.



# RESEARCH IN PROGRESS

## A list of research scholars registered for doctoral degrees in Indian Universities

### SOCIAL SCIENCES

#### Psychology

1. Monika. Field dependence, field independence, cognitive style and imagery variables in memory and problem solving. HP. Dr D K Malhotra, Department of Psychology, Himachal Pradesh University, Shimla.

2. Raine, Gaytri. Psychological outcomes of sex preference for children. HP. Dr D K Malhotra, Department of Psychology, Himachal Pradesh University, Shimla.

3. Ravinder Kaur. A study of certain psychological problems of retired professionals. HP. Dr Sagar Sharma, Department of Psychology, Himachal Pradesh University, Shimla.

#### Sociology

1. Panicker, Narayana E V. Regional variations in population dynamics: Case of Kerala. Kerala. Dr P S Nair, Addl Director, Population Research Centre, Kariavattom.

2. Tewari, Asha. Grameen saksharata aur saksharata abhiyan : Ujjain jile ke vishesh sandarbh mein ek samajhastriya adhyayan. Vikram. Prof N L Sharma, Madhav College, Ujjain.

#### Political Science

1. Vijayakumar, G. Judicial activism in India : A case study of judgements of Justice V R Krishna Iyer and Chief Justice P N Bhagavathy. Kerala. Dr M Bhaskaran Nair, Head, Department of Politics, University of Kerala, Thiruvananthapuram.

#### Law

1. Anupama. Social justice and its implementation with special reference to the state of Punjab. Panjab. Prof V K Bansal, Chairman, Department of Laws, Panjab University, Chandigarh.

2. Goyal, Monica. Judiciary and its response to social issues : A critique under the Indian Constitution. Panjab. Dr P S Jaswal, Reader, Department of Laws, Panjab University, Chandigarh.

#### Education

1. Khlaum, Sunthon. A study of dual-factor theory of job satisfaction and job dissatisfaction in relation to personality types and self-concept of secondary school teachers in Thailand. Panjab. Prof Harish Chandra Sharma, Department of Education, Panjab University, Chandigarh.

2. Kohli, Vikas. Effectiveness of self learning modules on achievement in Geography in relation to mastery and non mastery teaching strategies, intelligence and study habits. Panjab. Dr G S Sodhi, Department of Education, Panjab University, Chandigarh and Dr Sunil Dutt, Lecturer, Department of Education, Technical Teachers Training Institute, Sector-26, Chandigarh.

3. Patel, Hansaben D. Organisational climate of Navodaya Vidyalayas of Gujarat. S Gujarat. Dr Unmed Singh, Department of Education, South Gujarat University, Surat.

4. Sanjeev Kumar. Effectiveness of modular curriculum in Science in relation to classroom environment and style of learning and thinking. Panjab. Dr G S Sodhi, Department of

Education, Panjab University, Chandigarh.

5. Sharma, Narottam Kumar. Modular approach to Science curriculum and its effectiveness in value orientation of ninth grade students. Panjab. Dr (Miss) S Gakhar, and Dr (Mrs) Nandita, Department of Education, Panjab University, Chandigarh.

6. Sharma, Neerja. A study of personality characteristics, adjustment values and ideals of students of denominational schools. Panjab. Dr S C Gakhar, Department of Education, Panjab University, Chandigarh.

#### Commerce

1. Bhutada, Rajendra Kumar. Ujjain jile ke prathamik sehkari smitiyon ka vishleshtnatmak adhyayan. H S Gour. Dr Sanjeev Dubey.

2. George, K I. Problems and prospects of readymade garment industry in Kerala. Kerala. Dr Thomas Koshy, Department of Commerce, Mar Ivanios College, Thiruvananthapuram.

3. Gupta, Mahesh Kumar. Ujjain jile ke sudhyogik vikas mein Madhya Pradesh Vitt Nigam ke bhumika ka ek vishleshtnatmak mulyankan. Vikram. Dr A C Gulhati, Madhav College, Ujjain.

4. Juneja, Anil Kumar. M P Vitt Nigam dwara laghu udyogon ke pradatt vittiya sahayata: Vishleshtnatmak adhyayan. H S Gour. Dr B K Jain, Department of Commerce, Dr Harisingh Gour Vishwavidyalaya, Sagar.

5. Kailani, Meru. Merchant banking in India : An appraisal. Panjab. Prof S P Singh, University Business School, Panjab University, Chandigarh and Dr Lalit K Bansal, Reader, Department of Correspondence Studies, Panjab University, Chandigarh.

6. Naipaya, Bhopran. Pashchim Nimar jile mein udyamita vikas ke yojanayen evam sambhavnayen. Vikram. Dr. Rakesh Dand, Department of Commerce, Madhav College, Ujjain.

7. Patley, Santosh Kumar. Bharat mein punji bazar ke navin pravrittiyan. H S Gour. Dr R K Bharati, Department of Commerce, Dr Harisingh Gour Vishwavidyalaya, Sagar.

8. Soni, Munnalal. Laghu udyogon ke vitt vyavastha mein vanijya bankon ka yogdan: Tikamgarh jile ke vishesh sandarbh mein. H S Gour. Dr O P Agarwal, Department of Commerce, Dr Harisingh Gour Vishwavidyalaya, Sagar.

#### Management

1. Agarwal, Punam. Comparative performance measurement of selected public and private enterprises. Panjab. Dr Manoj K Sharma, Lecturer, University Business School, Panjab University, Chandigarh.

2. Arora, Poonam. A study of transition to total quality management in industrial organisation in a region in Northern India. Panjab. Prof S P Singh, Chairman, (Mrs) Meenakshi Malhotra, Lecturer, University Business School, Panjab University, Chandigarh.

3. Arora, Vibha. Growth and prospectus of food-processing industry in Punjab. Panjab. Dr Manoj K Sharma, Lecturer, University Business School, Panjab University, Chandigarh.

4. Bikramjit Kaur. Measurement and management of earn-

ings in PSIDC promoted companies. Panjab. Dr A K Vashisht, Reader, University Business School, Panjab University, Chandigarh.

5. Das Gupta, Moutushi. A model of sustainable management of forests in India. Panjab. Dr Manoj K Sharma, Lecturer, University Business School, Panjab University, Chandigarh.

6. Dubey, Sanjay. An appraisal of marketing practices of South Eastern Coalfields Ltd, Bilaspur. Vikram. Dr Nageshwar Rao, Director, Pt J N Institute of Business Management, University Campus, Vikram University Ujjain.

7. Jasminder Kaur. Redesigning personnel information systems : A study of selected food processing units in Punjab. Panjab. Dr (Mrs) M Malhotra, University Business School, Panjab University, Chandigarh.

8. Kohli, Pooja. Corporate disclosure practices : A comparative study of the Indian and U S companies. Panjab. Dr Dinesh K Gupta, Lecturer, University Business School, Panjab University, Chandigarh.

9. Mangla, Geeta. A study of executive compensation : Policies and practices in select organisations in a region in North India. Panjab. Dr (Mrs) Meenakshi Malhotra, Lecturer, University Business School, Panjab University, Chandigarh.

10. Sharma, Rajesh Kumar. Working of Indian Labour Legislative frameworks in selected large sized industrial organisations of Punjab. Panjab. Dr P P Arya, Reader, University Business School, Panjab University, Chandigarh.

11. Sharma, Ritu. Performance evaluation of public sector and private sector banks. Panjab. Dr Manoj K Sharma, Lecturer, University Business School, Panjab University, Chandigarh.

12. Vij, Sandeep. A study of impact of quality circles on quality of work life in a few selected organisations in a region in Northern India. Panjab. Dr (Mrs) Meenakshi Malhotra, Lecturer, University Business School, Panjab University, Chandigarh.

## HUMANITIES

### Language & Literature

#### English

1. Nair, Asha K. Reductionism to Restoration Geoffrey Hartman and Herold Bloom as critics. Kerala. Dr Maya Dutt, Reader, Institute of English, University of Kerala, Thiruvananthapuram.

#### Sanskrit

1. Bhavay, Ram Narayan. Kalidas tatha Ban Bhatt ke kavyon mein pauranik sandarbh : Ek anusheelan. Vikram. Dr V P Mishra, School of Studies in Sanskrit, Vikram University, Ujjain.

2. Chaturvedi, Pratibhaditya. Dharamashastriya vangmaya ke pariprekahya mein Bhagwant Baskar : Ek anusheelan, Bhatt Neel Kanth krit, 1610-1645 evi. Vikram. Dr Kedar Nath Shukla, School of Studies in Sanskrit, Vikram University, Ujjain.

3. Pandey, Laxmi Narayan. Sanskrit ke chhand shastriya parampara aur uske vividh ayam. Vikram. Dr V P Mishra, School of Studies in Sanskrit, Vikram University, Ujjain.

4. Prashar, Shyamdatt Sharma. Shankracharya vishyak Sanskrit Mahakavya : Ek adhyayan. Vikram. Dr Kedarnarayan Joshi, School of Studies in Sanskrit, Vikram University, Ujjain.

5. Tewari, Mudita. Irshadi Dashopanishadon mein vidyatatva evam pramukh vidyayen : Ek adhyayan. Vikram. Dr V P Mishra, School of Studies in Sanskrit, Vikram University, Ujjain.

#### Ujjain.

6. Trivedi, Dinesh Kumar. Yoga Vashisht ka sahitayik anusheelan. Vikram. Dr V P Singh, School of Studies in Sanskrit, Vikram University, Ujjain.

7. Upadhyaya, Mallika. Malaw Sanskrit abhilekh kosha. Vikram. Dr Kedarnarayan Joshi, School of Studies in Sanskrit, Vikram University, Ujjain.

#### Hindi

1. Gore, Hitsha. Pt Bhagwati Prasad Vajpai ke upanyason mein nari patron ka anusheelan. Vikram. Dr (Mrs) Manorama Bhatnagar, School of Studies in Hindi, Vikram University, Ujjain.

2. Mishra, Madhu. Bhartendu yugeen nibandh sahitaya ka anusheelan. H S Gour. Dr R D Mishra, Prof (Retd), Govt College, Sagar.

3. Nigam, R. Shree Balkavi Vairagi ke samagra sahitaya ka anusheelan. Vikram. Dr Ravindra Choure, School of Studies in Hindi, Vikram University, Ujjain.

4. Palshiwar, S. Kabir sahitaya mein sanakritik chetana. Vikram. Dr Hari Mohan Budholiya, School of Studies in Hindi, Vikram University, Ujjain.

5. Senal Kumar, N. Problems in the implementation of official language Hindi with special reference to Kerala. Kerala. Dr M A Karim, Asstt Director, Department of Publications, University of Kerala, Thiruvananthapuram.

6. Swarnamma, C. Hariaudh aur K C Kesava Pillai ke kavya sadhana : Ek tulnatmak adhyayan. Kerala. Dr R S Ramchandran Nair, Prof, Department of Hindi, University College, University of Kerala, Thiruvananthapuram.

#### Tamil

1. Thangathurai, John P. Manonmaniya and its sources. Kerala. Dr P Padmanabhan Thampi, Reader, Oriental Research Institute and Manuscripts Library, University of Kerala, Kariavattom.

2. Vijayalakshmi, T. Folk medicines and practices of Tribes in Palakkad District. Kerala. Dr P Doctor Nazeemdeen, Reader, Department of Tamil, University of Kerala, Kariavattom.

#### Malayalam

1. Mini, N. Durauthabodhathilale thalangal - Malayala kathakarikalil Lalithambika Antharjanam, Saraswathi Amma, Rajalakshmi, Madhavikutti annivarude kathakale aspathanakkil oru padanam. Kerala. Dr N K George Orakoor, Director, The State Institute of Encyclopaedic Publications, Thycad, Thiruvananthapuram.

2. Sreekanta Kurup, C. Narrative techniques in the novels of C V Raman Pillai. Kerala. Dr P V Velayudhan Pillai, 'Suryakanthi', Statue, Trivandrum.

4. Srinivasan, Maya. Lexical interference in Malayalam. Kerala. Dr A P Andrews Kutty, Prof, Department of Linguistics, University of Kerala, Kariavattom.

3. Unnikrishnan, A M. Naveenata Malayala cherukadhayil. Kerala. Dr P V Velayudhan Pillai, 'Suryakanthi' Statue, Trivandrum.

#### History

1. Gopakumar, P F. History of inland navigation in Travancore. Kerala. Dr S Sivadasan, Lecturer, University College, University of Kerala, Thiruvananthapuram.

## **RESEARCH/STUDY GRANTS IN INTERNATIONAL RELATIONS**

The ASRC is happy to announce a series of research/study grants in the field of international relations (broadly defined). Eligible M.Phil and Ph.D. scholars and college and university teachers are welcome to apply for these grants under the Ford Foundation programme in international relations. **Preference will be given to those working/teaching international relations of South Asia.** These grants are in three categories :-

1. Research Grant (RG) supports basic research in the field and the benefits include :

(a) one round-trip sleeper-class railfare from the grantee's University to Hyderabad, subject to a minimum stay of 14 days for a 21-day grant and 21 days for a 28-day grant; (b) travel allowance of Rs. 60/- per day calculated to the nearest quarter day; and (c) a per diem of Rs. 60/- for each day's use of the ASRC Library. Grants are awarded for periods of 21 to 28 days.

2. Study Grant (SG) supports young scholars or teachers, who wish to come to the Centre to read intensively on some aspect of international relations either in preparation for research at the M.Phil and doctoral level or to strengthen their teaching international relations. Benefits are same as those provided for Research Grants.

3. Middle Award (MA) supports IR scholars who have had their Ph.D. for five or more years and have demonstrated evidence of continuing scholarly activity. Benefits are : (a) one round-trip second A.C/first-class railfare from the grantee's home to Hyderabad, subject to a minimum stay of 14 days for a 21-day grant and 21 days for a 28-day grant; (b) travel allowance of Rs. 100 per day calculated to the nearest quarter day; and (c) a per diem of Rs. 100 for each day's use of the ASRC Library. Grants are awarded for periods of 21 to 28 days.

**Deadline for applications : 15 January for summer awards and 15 July for winter awards.**

In addition, a limited number of Scholar-in-Residence (SIR) grants are given by invitation to senior and recognized scholars and teachers in the field.

***For details please contact :***

**Dr. B. Ramesh Babu  
Senior Academic Fellow in International Relations  
American Studies Research Centre  
Hyderabad 500 007**

# CLASSIFIED ADVERTISEMENTS

## TAMIL NADU VETERINARY AND ANIMAL SCIENCES UNIVERSITY, MADRAS - 600 007.

### ADVERTISEMENT No. 1/96

Applications are invited in the prescribed form for the following posts in the University.

#### FACULTIES OF VETERINARY AND ANIMAL SCIENCES/FISHERIES SCIENCE AND BASIC SCIENCES :

##### A) PROFESSORS - 9 posts.

Sl. No.	Discipline	No. of posts	Reservation if any
(1)	(2)	(3)	(4)
1.	Dairy Science	1	Open
2.	Parasitology	1	-Do-
3.	Obstetrics & Gynaecology	1	-Do-
4.	Animal Genetics	1	-Do-
5.	Clinical Medicine and Therapeutics	1	-Do-
6.	Pathology	1	-Do-
7.	University Research Farm	2	-Do-
8.	Fish Processing Technology	1	-Do-

##### B) ASSOCIATE PROFESSORS - 38 posts.

1.	Anatomy	4	Open
2.	Animal Genetics	2	-Do-
3.	Animal Husbandry Economics	3	-Do-
4.	Animal Nutrition	1	-Do-
5.	Extension	1	-Do-
6.	Clinical Medicine and Therapeutics	1	-Do-
7.	Clinics	1	-Do-
8.	Livestock Production and Management	2	-Do-
9.	Meat Science and Technology	3	-Do-
10.	Microbiology	1	-Do-
11.	Obstetrics and Gynaecology	2	-Do-
12.	Parasitology	1	-Do-
13.	Pathology	2	-Do-
14.	Physiology	1	-Do-
15.	Preventive Medicine	1	-Do-
16.	Surgery	1	-Do-
17.	Pharmacology (Pharmacy)	1	-Do-
18.	Avian Diagnostic Lab/University Training and Research Centres	3	-Do-
19.	University Research Farms	4	-Do-

##### FISHERIES:

20.	Fish Processing Technology	1	-Do-
21.	Fishing Technology & Fishery Engineering	1	-Do-
22.	Fishery Extension	1	-Do-

##### C) SYSTEM ANALYST - 1 Post

1.	Animal Husbandry Economics	1	Open
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#### SCALES OF PAY:

- a) Professor - Rs. 4500-150-5700-200-7300
- b) Associate Professor - Rs. 3700-125-4950-150-5700
- c) System Analyst - Rs. 3700-125-4950-150-5700

#### QUALIFICATION (as prescribed in TANUVAS Regulations):

##### a) PROFESSOR:

Ph.D. Degree with ten years of experience in the teaching/research in the concerned subject.

For University Research Farm persons with basic degree of B.V.Sc. with Masters and Doctorate degrees in any branch of Veterinary and Animal Sciences including Basic Sciences can apply.

##### b) ASSOCIATE PROFESSOR

Ph.D. Degree with five years of experience in teaching/research in the concerned subject.

For University Training and Research Centres/Research Farms — Persons with basic degree of B.V.Sc. with Masters and Doctorate degrees in any branch of Veterinary and Animal Sciences including Basic Sciences can apply.

##### C) SYSTEM ANALYST:

- a) Ph.D. in Computer Science.  
(OR)

Ph.D. in disciplines of Livestock Production Studies or Animal Husbandry Statistics/Maths/Statistics/Animal Husbandry Economics with specialisation in Computer application.

- b) Experience for 5 years in the field of Computer Science Management Operations and programme development with special reference to Animal Husbandry/Fisheries. Persons applying for the post should have passed NET EXAMINATION.

For all the posts, except System Analyst Basic degree of B.V.Sc./B.F.Sc. recognised by this University is required.

Application form and instructions to candidates can be had from the Registrar, Tamil Nadu Veterinary and Animal Sciences University, Madras-7 by sending a crossed Demand Draft for Rs. 10/- drawn

in favour of "The Finance Officer, Tamil Nadu Veterinary and Animal Sciences University, Madras 600 007 at any Nationalised bank with a self addressed envelope (31x13 cm) bearing postage stamps to the value of Rs 3/-. The Demand Draft should be dated not earlier than 04.06.1996. Completed applications should reach the Registrar, Tamil Nadu Veterinary and Animal Sciences University before 5.00 p.m. on 04.07.1996. The SC/ST candidates are exempted from payment of application fee on production of proper evidence.

Place : Madras REGISTRAR I/c.  
Date : 04.06.1996

### TECHNICAL TEACHERS' TRAINING INSTITUTE

(NORTHERN REGION)

SECTOR 26, CHANDIGARH

(A Central Autonomous body established by the Government of India, Ministry of Human Resource Development).

Advertisement No. 45 (June 1996)

Applications are invited for the post of PRINCIPAL of the institute in the pay scale of Rs. 6300-200-7300 plus DA and other allowances at par with the Central Government Employees at Chandigarh.

#### QUALIFICATIONS AND EXPERIENCE Essential

(a) Ph.D degree with I class at Bachelor's or Master's level in Engineering/Technology.

OR

Ph.D degree with I class Master's degree in Science.

(b) 10 years experience in teaching/industry/research out of which 5 years must be at the level of Professor or equivalent.

(c) Administrative experience at the level of Head of Academic Department or equivalent.

#### NOTE

(1) Candidates from Industry/Profession with recognised professional work of

high standard recognised at National/International level equivalent to Doctorate would also be eligible.

- (2) Candidates with Engineering/Technology background will be preferred.
- (3) Relaxation of qualification is considered in exceptional cases.

#### JOB RESPONSIBILITIES

- Academic and Administrative Management of the institution.
- Policy planning and providing academic and administrative leadership.
- Monitoring and Evaluation of Academic and Research activities.
- Promotion of Industry-Institute interaction and Research and Development work.
- Promoting Consultancy Services.
- Participation in Policy Planning at the Regional/National level for development of technical education.

#### TERM OF APPOINTMENT

The initial appointment will be for a period of five years or till the age of 60 years whichever is earlier. The normal age of superannuation for Principal is 60 years

#### GENERAL

Four copies of application on plain paper with Curriculum Vitae complete in all respects alongwith attested copies of certificates and names and addresses of two referees as also crossed Indian Postal Order for Rs 7.50 (not required for SC/ST candidates and employees of TTIs) payable to Principal, Technical Teachers'

Training Institute, Chandigarh must reach the Chairman, Board of Governors, Technical Teachers' Training Institute, Sector 26, Chandigarh-160 019 on or before 22nd July, 96. Advertisement number and name of the post applied for be clearly written on the envelope. Candidates called for interview shall be paid First Class Rail-fare by the shortest route or the actual fare whichever is less. The candidates who are already in service should submit their applications through proper channel, otherwise they will be required to furnish a 'NO OBJECTION CERTIFICATE' from their employer at the time of interview. Advance copy of the application may be sent directly in the first instance to avoid delay.

### DHUBRI LAW COLLEGE, DHUBRI

P O BIDYAPASA - 783 303  
ASSAM

Wanted four numbers of LL.M wholetime teachers of First class LL.B Degree holders having at least 5 years experience at the Bar at Rs. 2200/- per month/as pay and allowances which is negotiable

Applications along with testimonials from H.S.L.C. onwards should reach the undersigned within 15 days from the date of publications of this Advt

R.N. Choudhury  
PRINCIPAL/SECRETARY



## DOCTOR HARISINGH GOUR VISHWAVIDYALAYA

SAGAR 470 003 (M.P.)

### CORRIGENDUM

The following corrigendum be read in the Advertisement No R-3/96 of Dr. Harisingh Gour Vishwavidyalaya, Sagar :-

1. One post of Professor in Applied Geology is earmarked for specialisation in Ground Water Geology. Specialisation for the other remains unchanged. 2. The words 'Inorganic/Physical Chemistry', are deleted after Professor (1-G) in Chemistry.

Specifications for the post of Reader in Chemistry be read as :- 'Readers (3) (1-ST), 2-G), (One in Organic Chemistry)'. 3. Makhanlal Chaturvedi Chair in Hindi will remain under General category and other post of Professor in Hindi also will remain in General category. 4. Specifications for the posts of Professors in Pharmaceutical Science are to be read as :- 'Professors (2-G), one in Pharmaceutical Chemistry and one in Pharmaceutical bio-technology'. 5. The specialisations for all posts published in the advertisement No. R-3/96 are meant for all categories & not for any specified category.

Madhyam/5431/96

REGISTRAR

## Advertisement Notice No. 6/96

### REGIONAL ENGINEERING COLLEGE, HAMIRPUR-177 005: (HP)

Applications on prescribed form for the following teaching and non-teaching posts are invited to reach by 20-07-1996 (5.00 PM):-

#### I TEACHING POSTS:

S. No.	Discipline	Professor	Asstt. Prof.	Lecturer	Remarks
1.	Mechanical Engg. Deptt.	01	01	01	Against the 5 posts of Lecturers one post is reserved for candidate of S.C. category in any of the disciplines where a suitable S.C. candidate will be available and his name recommended by the SSC.
2.	Electrical Engg. Deptt.	01	-	-	
3.	Electronics & Comm. Engg. Deptt.	01	01	-	
4.	Computer Science & Engg.	01	01	01	
5.	Mathematics	01	-	-	S.C. candidate will be available and his name recommended by the SSC.
6.	Chemistry	01	-	-	
7.	Civil Engg. Deptt. (one in Geology and one in Water Resources Engg.)	-	-	02	
8.	Physics	-	-	01	
Total		06	03	05	

Note: In the event of non-availability of suitable candidate of S.C., the post will be filled from the General category.

POSITION	SCALE OF POST	AGE LIMIT
1. Professor	Rs. 4500-7300	Below 50 years
2. Assistant Professor	Rs. 3700-5700	Below 45 years
3. Lecturer	Rs. 2200-4000	Below 35 years

**QUALIFICATION:** As laid down by the AICTE. However, the educational qualification for the post of Lecturer in Geology will be Ph.D /Master's Degree in Geology/Engg. Geology.

#### II. NON-TEACHING POSTS:

9 Foreman in the pay scale of Rs. 2000-3500 (under revision) (One post) reserved for Scheduled Caste.

**Educational Qualifications & Experience**  
**Essential**

1) B.E. First class in Mechanical/Production Engg. or its equivalent.

**Desirable:**

3 years experience in a reputed engineering concern.

Age: Between 18 years to 35 years.

10. Assistant Librarian in the pay scale of Rs. 1650-2925 (one post) reserved for Scheduled Caste

**Educational Qualifications & Experience:**  
**Essential:**

Second Class M.A./M.Sc. and Degree in Library Science from a University recognised by H.P. University, Shimla.

**Desirable:**

Knowledge of Customs, manners and dialects of H.P. and suitability for appointment in the peculiar conditions prevailing in the Pradesh.

Three years experience as Sr. Library Assistant or equivalent from a Govt./Semi-Govt./Autonomous Institution.

Age: Between 18 to 35 years relaxable by 5 years for S.C. candidates.

11. Senior Library Assistant in the pay scale of Rs. 1500-2700 (one post) — General

**Educational Qualifications & Experience**

1) Graduate from recognised University.

2) Diploma in Library Science of minimum one year duration from a recognised Univ./Board.

3) Typing speed of 30 w.p.m. in English.

4) Atleast three years experience in College/Univ./Technical Institution as Library Asstt. or equivalent.  
Age: Between 18 to 35 years relaxable by 5 years for S.C. & S.T. candidates.

Application forms (only for the posts at S.No. 1 to 9) alongwith general information and instructions to the candidates can be had from the Registrar, REC, Hamirpur (HP) on payment of Rs. 20/- for each form either in cash on counter or by Indian Postal order in favour of Deputy Registrar (Accounts) payable at Post Office, Hamirpur (HP) with self-addressed envelope 23x10cm. affixed with stamps of Rs. 4/-.

For the posts at S.No. 10 & 11, the applications on plain paper neatly typed or handwritten giving full bio-data indicating the percentage of marks obtained in each examination, alongwith attested photocopies of all certificates, a recent passport size photograph attached on the top of the application, crossed Indian Postal order worth Rs. 40/- in the name of Dy. Registrar (Accts.), a self addressed envelope worth Rs. 10/- (Rupees ten) only superscribed "APPLICATION FOR THE POST OF \_\_\_\_\_" will be entertained.

The vacancies indicated are tentative which can be increased or decreased. The College reserves the right not to fill any of the posts

PRINCIPAL,

**ASSUMPTION COLLEGE,  
CHANGANACHERRY  
(Mahatma Gandhi University)**

**WANTED  
(Ladies Only)**

I Junior Lecturers - Pre-Degree (Open & Community quota)

Subjects: Mathematics, Physics, Home Science & Hindi

**Qualification:** Masters degree with 50% marks and B.Ed. degree

II Lecturers - (Open & Community Quota)

Subjects : Home Science, Electronics (Computer Science)

Qualifications, age limit etc. as prescribed by the UGC/University/Government.

Applications on prescribed form



along with copies of all certificates should reach the undersigned within one month from the date of this publication.

**PRINCIPAL.**

**B.C.M.COLLEGE  
KOTTAYAM**

Wanted Lecturers & Junior Lecturers in St. Stephen's College, Uzhavoor for the following subjects.

- 1) Physics (Open and Community Quota)
- 2) Chemistry (Open and Community Quota)

**Lecturer**

Qualifications and age as per U.G.C./ Government/University rules.

**Junior Lecturers**

Qualification will be postgraduate with 50% marks in concerned subjects and B.Ed. and completed 22 years of age or is not above 35 years of age as on 1-1-1996. Apply within one month from the date of this notification. Application forms can be had from B.C.M. College Office, Kottayam on payment of Rs. 100/- (Rs. 110/- by post)

**Professor-in-Charge**

U.G.C. and University norms.

**Age :** As per Government/University norms in force.

Eligible candidates as per the above norms who have responded to our earlier advertisements regarding S.S.V. College need not apply afresh.

Applications in the prescribed form which can be had from the Principal of the above colleges on a payment of Rs. 100/- (Rs. 110 by post) shall be sent to the Secretary, Sreesankara Trust with in one month from the date of notification.

**Secretary  
Sreesankara Trust**

**SREESANKARA TRUST,  
ADVAITHA BHAVAN, VALAYANCHIRANGARA  
P.O. Perumbavoor, Pin - 683 556**

**WANTED**

Applications are invited for the following posts in colleges managed by the Trust.

- I. Sreesankara Vidyapeetom college, Valayanchirangara, P.O., Perumbavoor - 683 556 (Affiliated to M.G. University)

**Jr. Lecturers in Pre-Degree category**

	No. of vacancies	Nature	Quota
1. English	Four	3 permanent 1 Temporary	2 Community (Namboodiri) 1 Open 1 Open
2. Hindi	One	Leave vacancy	Open
3. Physics	Three	2 permanent	1 Open 1 Community (Namboodiri)
4. Zoology	One	1 leave vacancy Permanent	Open
5. History	Two	Permanent	1 Open 1 community (Namboodiri)
6. Commerce	One	Permanent	Open

- II. Sreekrishnapuram V.T.B. College, Mannampet. P.O. 679517, Palghat district (Affiliated to Calicut university)

**Lecturers in**

1. Statistics (UGC) category)	One	Permanent	Open
2. Computer Science	One	Permanent	Open
3. Political Science (Part time)	One	Permanent	Open
Jr Lecturers in History, Pre Degree category	One	Permanent	Open

**Qualifications**

For Junior Lecturers as per G.O. (MS) No. 30/96/H. Edn. dated 12.2.1996 IIInd class

Masters Degree with minimum of 50% marks and B.Ed. Degree

For Lecturers under U.G.C. category as per

**CORPORATE EDUCATIONAL  
AGENCY,  
DIOCESE OF  
KOTHAMANGALAM**

**WANTED**

Applications are invited for the following posts of Jr. Lecturers (Pre-degree category)/Lecturers (U.G.C Category) likely to occur in the Colleges under this Agency subject to Government, University and U.G.C. norms:-

English, Malayalam, Hindi, Physics, Statistics, Botany, Commerce and Economics.

**Age:** 22 years completed and not above 35 as on 1-1-1996.

**Qualifications:**

1) U.G.C. - Master's Degree in the concerned subject with 55% of marks and pass in the National level eligibility test by the U.G.C./CSIR or similar tests accredited by the U.G.C. (Those who have passed M.Phil or submitted Ph.D. thesis by 31-12-93 are exempted from eligibility test).

2) P.D.C. - Master's Degree in the concerned subject with at least 50% marks and B.Ed. Degree.

Apply within 30 days from the date of this notification in the forms that can be had from "the Manager of Colleges, Bishop's House, Kothamangalam" on payment of Rs. 100/-.

**RASHTRIYA SANSKRIT  
VIDYAPEETHA  
(DEEMED UNIVERSITY)  
TIRUPATI -517 507  
CORRIGENDUM**

Reference advt published on 3rd cover of *University News* issue dated June 10, 1996.

The last date of receipt of completed applications may be read as 10th July, 1996 in place of July 05.

**Registrar**

# Ministry of Human Resource Development Department of Education

ES 3 Section, New Delhi

## JAPANESE GOVERNMENT SCHOLARSHIPS, 1997

Applications are invited on plain paper from Indian nationals residing in India for the award of 18 scholarships offered by the Government of Japan for the year, 1997 for Post-graduate study/research. Two scholarships are reserved for Japanese Language & Literature. The subjects in which scholarships will be awarded are given below -

(1) Microprocessor Applications/Technology, (2) Opto-electronics, (3) Fibre Optics, (4) Quality & Reliability Engineering (as applied to various systems like Electricity & Power, Railways, Heavy Industry, Heavy Electricals, Electronics & Communications etc.), (5) Robotics, (6) Laser Technology, (7) Bio-technology, (8) Ship-building, (9) Biological Oceanography, (10) Fine Arts (Painting & Sculpture), (11) Japanese Language & Literature, (12) Fisheries, (13) Japanese Studies, (14) Earthquake Engineering, (15) Management Studies, (16) Remote Sensing

Duration: 1½ to 2 years

Value: Maintenance allowance of 1,84,500 Yen per month (FY 1995), arrival allowance of 25,000 Yen, Field study allowance, tuition and examination fees exempted, part of the medical expenses in Japan will be paid. Accommodation will be arranged.

Passage Cost: Tourist class air-ticket from India to Japan and back will be provided by the Japanese Government.

Age Limit: Below 35 years as on 1st April, 1997 (i.e., born on or after 2nd April, 1962).

Qualification: The minimum qualification for ship-building and Japanese Language & Literature would be bachelor's degree in these subject fields. The minimum qualification in Fine Arts would be a bachelor's degree or diploma in Fine Arts equivalent of bachelor degree. For other subjects, the minimum qualification would be a Master's degree in the subject concerned, or a related field.

Essential Experience: Except for Fine Arts, and Japanese Language & Literature subjects, candidates should possess atleast two consecutive years of practical research/teaching/work experience as on 1st April, 1996, after obtaining the prescribed qualification.

### Notes

The following must be attached with the application: (1) a) Attested copy of the certificate certifying the date of birth, b) Attested copy of the marks sheet of the qualifying exam, c) Attested copies of all degree/diploma certificates etc. (2) Candidates who secured 60% or more marks at the prescribed qualification are eligible. (3) Where grades are mentioned, the candidate must indicate the conversion formula adopted by the University/Institution and should give equivalent percentage of marks. (4) Equivalent foreign degrees will be considered. (5) Candidates who have already been abroad for study/research/training for more than six months at a time either on a scholarship or on their own, are eligible to apply only if they have been in India for atleast two years after return from abroad. Applications of candidates, who are abroad will not be considered. (6) Masters Degree means M.A./M.Sc./M.Tech./M.E./M.B.A./M.Fisheries. (7) Candidates should have adequate knowledge of geographical situation, culture and heritage of Japan. (8) Applications in subject-fields other than those prescribed will not be considered. Separate applications be submitted for more than one subject. (9) Candidates who do not possess the requisite qualifications need not apply. (10) Employed candidates must send their applications through their employers with 'No Objection Certificate' otherwise these will not be considered. However advance applications will be considered provisionally pending sponsorship by employers. Advance application must be completed in all respects. (11) Candidates must attach with the application a description in atleast 300 words of his project/proposal of study/research to be undertaken in Japan. (12) Candidates in discipline of Fine Arts must attach with their application atleast four photographs of their art work. (13) In case no interview letter is received by a candidate, who applied in response to the advertisement, by 1st Sept., 1996, it may be presumed that he/she has not been selected. No correspondence will be entertained in this regard. (14) Applications, which are incomplete, will not be considered.

Candidates should apply for the above scholarship on a plain paper preferably typed or neatly hand written with a recent passport size photograph in the prescribed proforma, to the Director (Scholarships) Deptt. of Education, A-1/W-3 Curzon Road Barracks, Kasturba Gandhi Marg, New Delhi-110001, by the 15th July, 1996.

The applications received after 15.07.96 will not be considered.

No application form will be supplied by this Department.

### Instructions for filling up the Application Form

(A) GENERAL: (a) In application, information in boxes must be type written or hand written in block letters in full where the boxes are provided.

(b) Each box, wherever provided, should contain one character (alphabet/number/punctuation etc.) leaving a box blank after each word.

(c) Numeric values in boxes should always be given right/justified wherever the number of boxes provided are more than the value. It requires to contain in. For example, if Column No. 8 (a), value, 4 is to be entered as number of boxes provided are more than the value it requires to contain in. For example, if Column No. 8 (a) value 4 is to be entered as number of paper published, it should be written as

0	4
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(d) Columns for which response codes are provided along with question itself, it is required to choose an appropriate code and is to be filled in Box(es) provided for the purpose.

(e) Columns which are self explanatory, are not covered in Part (B) 'How to fill form' as these do not require further explanation.

### (B) HOW TO FILL THE FORM:

Column 1 & Column 2: Name of the Scholarship, Country and its code to be filled up same as printed against these columns.

Column 3 (a) & (b): Name of the course is the level at which study is desired. Enter name of course and its code in the box provided from the list given below:

	Code
i) Post-graduate	01
ii) Ph.D.	02
iii) Post-Doctoral	03
iv) Language Study	12
v) Specialisation	11

Enter name of the subject and its code in which you are interested from the permissible subjects given below.

Subjects	Code
1. Microprocessor Application/Technology	40
2. Opto-Electronics	41
3. Fibre Optics	42
4. Quality & Reliability Engineering	43
5. Robotics	12
6. Laser Technology	44
7. Bio-technology	11
8. Ship-building	46
9. Biological Oceanography	47
10. Fine Arts	23
11. Japanese Language & Literature	48
12. Fisheries	33
13. Japanese Studies	49
14. Earthquake Engineering	50
15. Management Studies	22
16. Remote Sensing	45

Column 4 (a): Name is to be written in full. Please write surname Last name followed by first name and middle name in the manner as given below:

Last Name	A	R	Y	A
First Name	A	N	I	L
Middle Name	K	U	M	A

Column 4 (e): Enter Father's/Husband's name in full.

Column 5 (a) & (b): Mailing and permanent address are to be provided in the specified format.

Column 6 (a): Date of birth is to be written as DD MM YY format. For example, write 01 10 63 as

01	10	63
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Age on prescribed date i.e., 1 04 97 is to be filled up as

33	Years	06	Months
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Column 9 (c): Date of employment is to be provided in DD MM YY format as mentioned in Col. 6 (a).

Column 13: As appropriate code is to be entered depending on the asked

document is enclosed with the application or not. For example, if certificate for proof of age is enclosed with application, then enter 1 in the box provided

**MINISTRY OF HUMAN RESOURCE DEVELOPMENT  
DEPARTMENT OF EDUCATION  
APPLICATION FORM FOR  
EXTERNAL SCHOLARSHIP/FELLOWSHIP**

Note: Read instructions carefully before filling up the application.

(To be affixed)  
Recent passport  
size photograph  
duly signed by  
the applicant

1 (a) Name of scholarship scheme **Japanese Government Scheme Code**  0  9  
Scholarship

2 Country **Japan** Country Code  J  A  P

3 (a) Name of Course Course Code    
(b) Subject Subject Code

4 (a) Name of Candidate  
Last Name          
First Name          
Middle Name

(b) Sex ☐ (1-Male, 2-Female)

(c) Nationality

(d) Marital Status ☐ (1-Married, 2-Unmarried 3-Widow, 4-Widower)

(e) Fathers/  
Husband's Name

5 (a) Mailing Address          
         
District/City          
State          
Pin Code

(b) Permanent Address          
         
District/City          
State          
Pin Code

6. (a) Date of birth

Age as on  Years  Months

(b) State to which you belong

(c) Caste  (1-SC, 2-ST, 3-Others)

If SC/ST, Whether SC/ST certificate is attached ☐ (1-Yes, 2-No)

7. Educational qualifications (starting from high school/higher secondary)

S No	Board/ University	Examination Passed	Subject	Division/ class with position, if any	% of marks obtained	Year of passing

8. Detail of published work

(a) Total number of papers published

(b) Give detail for each one of these in order of their publications

S. No.	Subject	Date of publication	Duration of completion
			From To
		DD-MM-YY	(DD-MM-YY) (DD-MM-YY)

9 (a) Total work experience Years  Months

(After obtaining the prescribed qualification)

(b) Details of professional/Research/Training and previous employment

S. No.	Name & address of organisation	Period of service	Designation	Nature of work	Reason for leaving
		From To			

(c) Present Employment

(i) Date of employment

(ii) Employer's name and address

Pin Code

(i) Designation

(iv) Nature of work

10. References of three persons who are familiar with your work (Two of them who taught you in an area of study relevant to course, the third may be from your employer or a person with whom you have worked professionally)

(i) Name

Designation

Address

Pin Code

(ii) Name

Designation

Address

Pin Code

(iii) Name

Designation

Address

Pin Code

11 VISITS ABROAD

(a) Have you ever been abroad?

(1-Yes, 2-No)

If 'yes' give details in item 'b'.

(b) Details of visit

S. No.	Country	Period	Purpose	Position	Assignment	Date of re- turning back to India
		From To				

12. Proposed programme of Study/Research/Training Specifying

(i) the work at present engaged in

(ii) nature and programme of proposed study/research/ training (Add a separate sheet)

(iii) future plans/prospects after the study/research/ training and its prospects

13 Enclosures.

Attested photocopy for

(1-Yes, 2-No)

(i) Proof of age

(ii) Educational Qualifications

(iii) Experience Certificates from employer

(iv) No objection Certificate from employer

(v) Letter of reference, if any from concerned country.

14. Declaration

I certify that foregoing information is correct and complete to the best of my knowledge and nothing has been concealed/distorted. I understand that if at any time I am found to have concealed/distorted any material information my selection shall be liable to summary termination without notice and compensation.

Place:

Signature

Date: